

## **ORDINANCE**

**ORDINANCE NO. 6265 (General)**

**AN ORDINANCE AMENDING THE *EUGENE-SPRINGFIELD METROPOLITAN PLAN* TO UPDATE THE SPRINGFIELD LOCAL WETLAND INVENTORY, THE SPRINGFIELD INVENTORY OF NATURAL RESOURCE SITES AND THE SPRINGFIELD NATURAL RESOURCES STUDY TO INCLUDE NEWLY IDENTIFIED WETLAND AND RIPARIAN SITES IN THE GLENWOOD AREA; TO ADOPT PROTECTION MEASURES FOR THE NEW GLENWOOD SITES AND TO UPDATE THE BOUNDARIES OF KNOWN SITES; AND ADOPTING A SEVERABILITY CLAUSE.**

### **THE CITY COUNCIL OF THE CITY OF SPRINGFIELD FINDS THAT:**

**WHEREAS**, the Springfield Local Wetland Inventory (Wetland Inventory) was adopted by the City Council in 1998 and identifies wetlands within the Springfield Urban Growth Boundary; and

**WHEREAS**, the Springfield Inventory of Natural Resource Sites (NR Inventory) was adopted by the City Council in 2004, and identifies riparian corridors within the Springfield Urban Growth Boundary; and

**WHEREAS**, the Springfield Natural Resources Study (NR Study) was adopted by the City Council in 2005 and prescribes protection measures for the resource sites identified in the Wetland and NR Inventories; and

**WHEREAS**, a new inventory of wetland and riparian resources in the Glenwood area has identified additional resource sites and refined the boundaries of known sites, and has prompted the need to amend the NR Study, the NR Inventory, and the Wetland Inventory; and

**WHEREAS**, amendments to the NR Study, which was adopted as a functional plan of the Eugene-Springfield Metropolitan General Plan, are processed as amendments to the Metro Plan; and

**WHEREAS**, Section 5.14-100 of the Springfield Development Code (SDC) sets forth procedures for amendments to the Metro Plan; and

**WHEREAS**, a public open house was held on January 11, 2011 to explain the proposed Glenwood amendments to NR Study, the NR Inventory and the Wetland Inventory and to receive public comment; and

**WHEREAS**, the Springfield Planning Commission conducted a public hearing on the Glenwood amendments to the Springfield Natural Resources Study (NR Study), the Springfield Inventory of Natural Resource Sites (NR Inventory) and the Springfield Local Wetland Inventory (Wetland Inventory) on January 19, 2011 and voted unanimously to recommend approval of the amendments to the City Council based upon findings in support of adoption of these amendments as set forth in the Staff Report and the Recommendation to the Council incorporated herein by reference (Case Number LRP2010-00002); and based on the evidence

and testimony in the record demonstrating that the proposed amendments comply with the criteria for approving Metro Plan amendments; and

**WHEREAS**, the Joint Elected Officials of the City of Springfield and Lane County held a public hearing on the proposed Glenwood amendments to the NR Study, the NR Inventory and the Wetland Inventory on February 7, 2010 and the Springfield City Council is now ready to take action on this matter based upon the above recommendation and the evidence and testimony already in the record as well as the evidence and testimony presented at this public hearing held in the matter of hearing this Ordinance adopting the Glenwood amendments to the NR Study, the NR Inventory and the Wetland Inventory.

**NOW THEREFORE, THE CITY OF SPRINGFIELD ORDAINS AS FOLLOWS:**

**Section 1:** The proposed Glenwood amendments to the Springfield Local Wetland Inventory, attached as Exhibit A, are adopted.

**Section 2:** The proposed Glenwood amendments to the Springfield Inventory of Natural Resource Sites, attached as Exhibit B, are adopted;

**Section 3:** The proposed Glenwood amendments to the Springfield Natural Resources Study, attached as Exhibit C, are adopted;

**Section 4:** If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portion thereof.

**Section 5:** Notwithstanding the effective date of Ordinances as provided in Section 2.110 of the Springfield Municipal Code, this Ordinance shall become effective upon the date that all of the following have occurred: (a) the Ordinance has been acknowledged, and/or at least 30 days have passed since the date the Ordinance was approved.

**ADOPTED** by the Common Council of the City of Springfield by a vote of 5 for and 0 against, this 22nd day of February, 2011.

**APPROVED** by the Mayor of the City of Springfield, this 22nd day of February, 2011.

**ATTEST:**

Amy Sowa  
City Recorder

Christine L. Perry  
Mayor

**REVIEWED & APPROVED**  
AS TO FORM  
H. D. Smith  
DATE: 2/7/11  
OFFICE OF CITY ATTORNEY

**Exhibit A: Springfield Local Wetland Inventory Report**  
**Strikeout text is removed. Shaded text is added.**

**[Insert at pg. "Local Wetland Inventory Summary-9"]**

Wetland W19 is 41.65 acres and is classified as POW/PFO. The wetlands were determined through on- and off-site methods. The wetlands are adjacent to the Springfield sheriff's pistol range and the portion of the Mill Race that has been widened to create a log pond for a mill. Soils were dark in color with mottles. Hydrology was indicated by the dominance of hydrophytic vegetation and presence of surface water in depressions. The wetland limits were determined where the vegetation changed and there were no longer indicators of hydrology and through use of black and white and infrared aerial photo interpretation and are limited to TOB.

[W19 was inadvertently left off of the original Local Wetland Inventory descriptions]

~~Wetland W20 is 3.39 acres and classified as PSS/PAB. The wetland is adjacent to Glenwood Slough and the railroad tracks. Overstory dominant species include Oregon ash, Oregon white oak (*Quercus garryana*) and big leaf maple. Understory dominant was willow (*Salix* sp.). Herbaceous dominants were yellow flag iris (*Iris pseudacorus*), spreading rush (*Juncus patens*) and marsh horsetail (*Equisetum arvense*). Soils were dark in color with mottles. Seasonal hydrology was indicated by the dominance of hydrophytic vegetation and presence of surface water in depressions. The wetland limits were determined where the vegetation changed and there were no longer indicators of hydrology.~~

Wetland W20 is 3.73 acres and is classified a Palustrine Shrub-Scrub wetland. The wetland is adjacent to Glenwood Slough and the railroad tracks. It is part of the Glenwood Slough. It flows northwest into W-21 prior to being culverted and flowing into the Willamette River. W-20 is bisected by Glenwood Blvd, but is still hydrologically connected by a culvert. The Slough is a topographic bowl. Hydrologic sources include stormwater from adjacent impervious surfaces, in addition to groundwater and upslope surface water. A portion of W-20 was previously delineated (WD96-0375).

The dominant wetland vegetation includes Oregon Ash, Sitka Willow, Red-Osier Dogwood, Field Mint, Begger's Tick, Soft Rush and Short Scale Sedge.

Soil types include: Chehalis silty clay loam.

Wetland W21 Wetland W-21 is .47 acres and is classified as a Palustrine Shrub-Scrub (PSS) wetland. The wetland is located under and east of the Interstate 5 Bridge just south of Franklin Blvd. W-21 was delineated in 2003 (WD2003-0273) as part of the ODOT's I-5 bridge project and Willamette River trail. The west portion was impacted by construction of the I-5 temporary detour bridge. W-21 is bounded to the south by railroad tracks. Glenwood Slough flows through the wetland as do several ditches used to convey stormwater. The wetland is less than one-half acre and is a judged locally significant wetland because of its hydrologic connection to the Willamette River. It is also connected to W22 and W23.

The dominant wetland vegetation includes Oregon Ash, Pacific Willow, Black Cottonwood, Red-Osier Dogwood, Slough Sedge, and Creeping Buttercup.

Soil types include: Chehalis silty clay loam, Pengra-Urban land complex.

Wetland W22 is 2.53 acres and is classified as a Palustrine Forested wetlands (PFO). W-22 is a PFO system located with a drainage that flows through the southern portion. Portions of the wetland have been previously delineated (WD's 03-0273, 00-0102, 98-0051). PHS did not have access to the easternmost and southern portions of W-22 and boundaries were determined through off-site observations, previous delineations, and aerial photography.

The dominant wetland vegetation includes Oregon Ash, Pacific Willow, Black Cottonwood, Red Alder, Clustered Wild Rose, Red-Osier Dogwood, Slough Sedge, Nipplewort and Soft Rush.

Soil types include Chehalis silty clay loam.

Wetland W23 is .87 acres and is classified as Palustrine Emergent (PEM) wetland. W-23 is a series of small PEM wetlands located within the ODOT ROW and on private property. The wetlands were delineated in 2007 for the I-5 bridge project (WD08-0140). The wetlands are located at the bottom of a steep slope. Hydrology from the wetlands flows into a channel that drains to the northwest into the Willamette River. The wetlands located in the ODOT ROW are mowed and maintained.

The dominant wetland vegetation includes Black Cottonwood, Wild Mint, Begger's Tick, Soft Rush, Sawbeak Sedge, Soft Brome, Common Velvet Grass, English Plantain, Tall Fescue, and Bluegrass species.

Soils types include: Dixonville-Philomath-Hazelair Complex

Wetland 24 is .51 acres and is classified as a Palustrine Forested wetland (PFO). W-24 is located at the bottom of surrounding steep slopes. There is a narrow intermittent drainage channel that flows through the middle of the wetland. This drainage continues east through a long culvert under McVay Hwy. and the railroad and out to the Willamette River. W-24 is located between I-5 and McVay Hwy. with residential land uses to the north and south.

The dominant wetland vegetation includes Black Cottonwood, Pacific Willow, Red-Osier Dogwood, Reed Canary Grass, Water-Parsley, Stinging Nettles, Slough Sedge and Field Horsetail.

Soil types include: Dixonville-Philomath-Hazelair Complex.

Wetland W25 is 4.31 acres in size and is a Palustrine Forested wetland (PFO) area bounded on all sides by railroad tracks. PHS was able to view the wetland from adjacent road ROWs and the Franz bakery property to the east. It is surrounded by adjacent commercial properties. There is a drainage located along the southern portion of the wetland. It flows northwest into a large culvert



located within the ROW of Glenwood Boulevard that is believed to flow into GS-3/Glenwood Slough.

Adjacent upland species: *Acer macrophyllum*, *Pseudotsuga mensiezi*, *Rubus discolor*, *Corylus cornuta*, *Carex leptopoda*, *Convolvulus* sp., *Hedera helix*, *Agrostis stolonifera*, *Symphoricarpos albus*

Soil types include: Chehalis silty clay loam

Wetland 26 is .86 acres in size and is a mosaic of 50% wetland and 50% upland located on undeveloped land north of I-5 at the top of a steep slope. It is relatively flat and appears to have been significantly disturbed in the past by scraping. Plant species include a mixture of upland and wetland species. Several areas had mottling and oxidized rhizospheres, despite the general lack of dark chroma soils. Deep tire ruts bare evidence of seasonally wet conditions.

Adjacent upland species: *Rhus diversilobum*, *Crataegus monogyna*, *Rubus discolor*, *Festuca arundinacea*, *Daucus carota*, *Hypericum perforatum*, *Cirsium vulgare*, *Chrysanthemum leucanthum*, *Centaurea pratensis*

Soil types include: Urban land-Hazelair-Dixonville complex

The tables below summarize the size and classification of the wetland areas within Springfield's Urban Growth Boundary.

**Table 1.**  
**City of Springfield Wetlands—McKenzie River Basin Wetlands**

Site Number	**OFWAM Significance	Acres	USFWS Classification(s)	"Other" Created Waters (Acres)
M1		4.94	RLP	
M2		3.12	PEM	10.50
M3		2.73	PEM/PFO	
M4	Locally Significant Wetlands Special Interest for Protection	5.02	PEM	
M5	Locally Significant Wetlands	9.13	PFO/PSS/PEM	
M6		4.05	PEM/PSS	
M7		0.2	PEM	
M8*		0.2	PSS	
M10*		2.72	RIN	
M11*		1.01	POW	
M12		1.22	PEM	
M14	Locally Significant Wetlands	33.45	PEM/PFO	
M15		6.41	PEM	

Site Number	**OFWAM Significance	Acres	USFWS Classification(s)	"Other" Created Waters (Acres)
M16	Locally Significant Wetlands	8.44	PFO/POW/RLP/PEM	
M17		3.15	PEM	
M18*		40.72	POW/PSS	16.75
M19		0.37	PFO	
M20	Locally Significant Wetlands	0.52	RLP	
M21		0.39	PEM	
M22		0.1	PEM	
M23		0.19	PEM	
M24		0.51	PEM	
M25		24.0	PEM	
M26	Locally Significant Wetlands	1.85	PFO/PEM/PSS	
M27		8.28	PEM/PFO	
M28	Special Interest for Protection- Mitigation Site	1.51	PEM	
M29	Locally Significant Wetlands Special Interest for Protection	1.08	PFO/PEM	
M30		6.49	PFO/PEM/POW	
M31		0	POW	8.06
M32		3.39	PEM	
M33		13.75	POW/PSS/RLP	116.17
M34		0.8	PFO	
M35		4.91	PEM	
M36		0.75	PEM	
M37		0.4	PEM	
M38		0.08	PEM/PFO	
M39*		1.88	PEM	
M40		16.51	RLP	
Total		214.27		151.48

\*denotes off-site wetland determination and mapping

\*\* Subsequent to the adoption of the Springfield Local Wetland Inventory, a state mandated analysis was completed to determine which wetlands were "locally significant" under state law. The results of the analysis are added to the summary information found in Tables 1 and 2. The term **OFWAM** stands for the Oregon Freshwater Wetland Assessment Methodology which by state mandate, is the analytical tool that is used to determine if a wetland is "significant."

**Table. 2**  
**City of Springfield Wetlands—Willamette River Basin Wetlands**

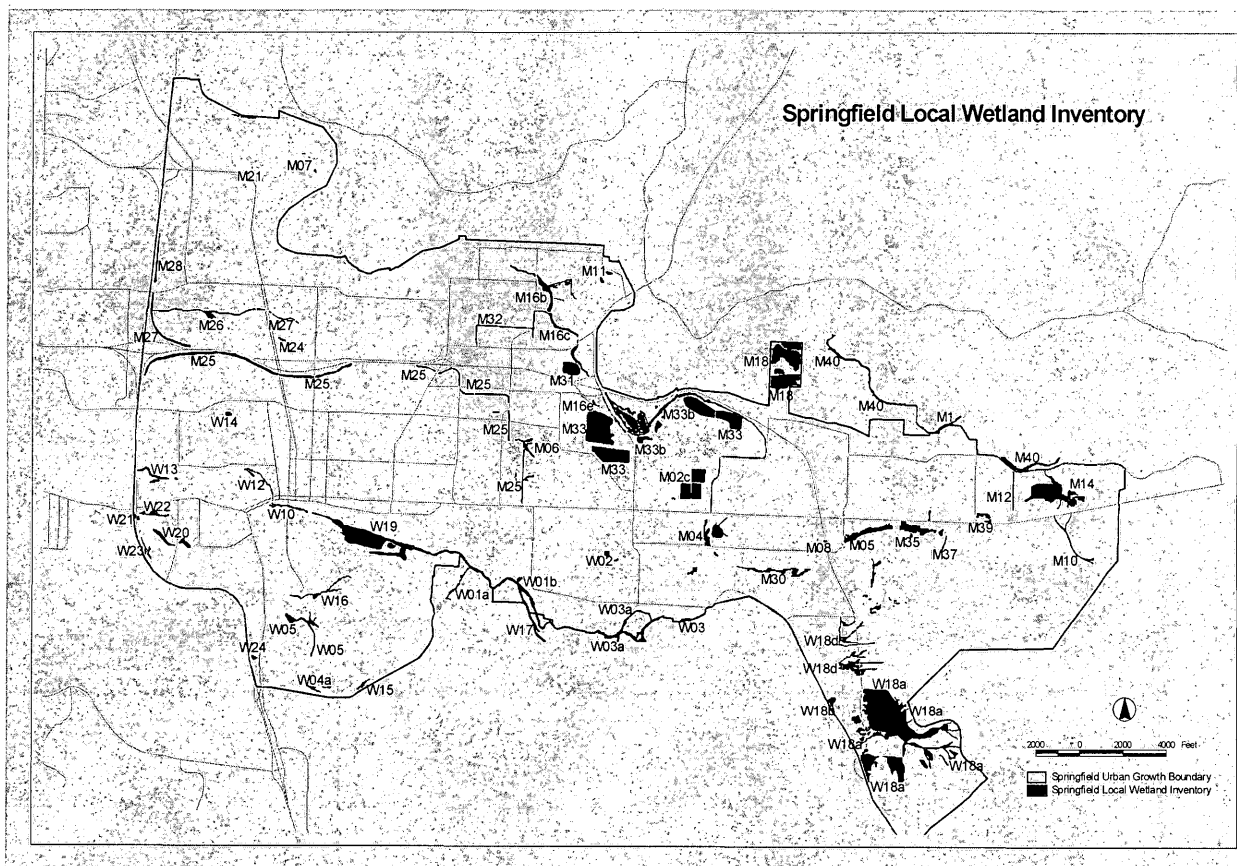
Site Number	OFWAM Significance	Acres	USFWS Classification(s)	"Other" Created Waters (Acres)
W1*		4.14	RLP	
W2	Locally Significant Wetlands, Special Interest for Protection	0.90	PEM	
W3		1.27	PFO/PEM/POW	
W4	Locally Significant Wetlands	0.97	PFO/PEM	
W5		5.6	POW/PFO/PEM	
W6		5.63	PFO	
W7*		0	POW	36.02
W8*		1.22	POW	
W9		0.22	PEM	
W11		0.67	PSS	
W12	Locally Significant Wetlands	1.42	PFO	
W10		2.25	PSS	
W13		2.24	PFO	
W14		0.97	PEM	
W15		0.79	PFO	
W16	Locally Significant Wetlands	1.46	PFO	
W17		17.21	RLP	
W18 A-C	Locally Significant Wetlands	131.99	PEM/PFO	
**W-19	Locally Significant Wetlands	41.65	POW, PFO	
W-20	Locally Significant Wetlands	3.73	PSS/PUB	
W-21	Locally Significant Wetlands	.47	PSS	
W-22	Locally Significant Wetlands	2.53	PFO	
W-23	Locally Significant Wetlands	.87	PEM	
W-24	Locally Significant Wetlands	.51	PFO	
W-25		4.31	PFO	
W-26		.86	PEM	
	Total	188.99 233.88		36.02

\*denotes off-site wetland determination and mapping

\*\*W-19 was inadvertently left off of this table in the original Springfield Local Wetland Inventory report. Wetlands W-20 through W-26 are the revised resource sites in the Glenwood area.

**Table 3**  
**City of Springfield Wetlands—Total Acreage**

	Jurisdictional Wetlands	"Other" Created Waters
McKenzie Basin	214.27	151.48
Willamette Basin	<del>189.99</del> 269.90	36.02
Total Acres	<del>404.13</del> 484.17	187.50



[Insert 11"x17" inch map]

**Exhibit B: Springfield Inventory of Natural Resource Sites**  
 Strikeout text is removed. Shaded text is added.

[Insert at pg. 18]

Site: ~~\_\_\_\_\_~~ **E39 (Glenwood Slough)**

Type: ~~\_\_\_\_\_~~ **Riparian**

Acres: ~~\_\_\_\_\_~~ **23.8**

WHA score: ~~46-47~~

WHA source: ~~Ester Lev, 1990~~

Area map(s): ~~5~~

**Description:** ~~Site E39 consists of several sloughs, wetlands, and riparian strips near or adjacent to Interstate 5 and the Southern Pacific Railroad tracks in the Glenwood area. Vegetation includes willows (*Salix* spp.), black cottonwood (*Populus trichocarpa*), sedge (*Carex* spp.), rush (*Juncus* spp.), cattails (*Typha latifolia*), and reed canarygrass (*Phalaris arundinacea*). Interspersion with other natural areas is limited by I-5 and other adjacent roads, but the site's proximity to the Willamette River may increase the number of wildlife species in the area. The Division of State Lands has determined that a portion of this site is a regulated wetland.~~

Site: **S25 (Formerly E39)**

Type: **Riparian**

Acres: **12.3**

WHA score: **46-47**

WHA source: **Ester Lev, 1990**

Area map(s): **6**

**Description:** Site S-25 (formerly E-39) consists of segments of the Glenwood Slough near or adjacent to Interstate 5, Franklin Boulevard, Glenwood Boulevard and the Union Pacific Railroad tracks in the Glenwood area. S-25 is generally surrounded by industrial uses, railroad tracks and a highway.

The western portion of S-25 wraps around the Glenwood solid waste transfer station. At its west end, the slough passes under the Willamette River I-5 overpass. This western portion has been channelized with cement sides.

The portions of S-25 on either side of Glenwood Boulevard are more natural and contain significant riparian vegetation including willows (*Salix* spp.), black cottonwood (*Populus trichocarpa*), sedge (*Carex* spp.), rush (*Juncus* spp.), cattails (*Typha latifolia*), and reed canarygrass (*Phalaris arundinacea*). Interspersion with other natural areas is limited by I-5 and other adjacent roads, but S-25's proximity to the Willamette River may increase the number of

wildlife species in the area. The Division of State Lands has determined that portions of this site are regulated wetlands (W-20, W-21, and W-22).

The dominant riparian tree species include Oregon Ash, Sitka Willow, Red-Osier Dogwood, Black Cottonwood, Black Locust and Oregon Maple.

No fish survey was conducted for S-25 and it is not shown on ODFW maps of fish-bearing streams. The proximity and open connectivity to the Willamette River also suggests that fish are present in the Slough.

**Site:** S26

**Type:** Riparian

**Acres:** 1.56

**WHA score:** 17-57

**WHA source:** Washburn

**Area map(s):** 6

**Description:** Site S-26 is a perennial stream that varies in width between 2-5 feet. It is bordered to the west by I-5. Much of the stream and the defined impact area are located within ODOT right-of-way adjacent to I-5 and beneath the Willamette I-5 Bridge. S-26 is segmented, with a 462-foot culvert dividing the northern and southern segments of the stream. The northern segment of S-26 daylights under the Willamette I-5 Bridge before continuing north to the Willamette River.

The dominant riparian tree species include Oregon Ash, Sitka Willow, Red-Osier Dogwood, Black Cottonwood, Black Locust, Oregon Maple, and Pacific Willow.

No known fish survey has been conducted for S-26. The stream is not shown on ODFW maps of fish-bearing streams. There is an unnamed perennial drainage that begins on the west side of I-5 (in Eugene) and is culverted under the freeway where it converges with the culverted portion of S-26. The Eugene drainage that connects to S-26 has been documented by ODFW as having cutthroat trout. The presence of cutthroat in the Eugene drainage suggests that S-26 is also fish-bearing. The proximity and connectivity to the Willamette River also suggests that fish are present in S-26.

**Site:** S27

**Type:** Riparian

**Acres:** .33

**WHA score:** 45

**WHA source:** Washburn

**Area map(s):** 6

**Description:** Site S-27 is a perennial stream segment that conveys water from the Moon Mt. area south of I-5. The stream is largely culverted from I-5 to the Glenwood slough, with



occasional daylighting along the watercourse. S-27 is one of those daylighted segments which opens into a 40 foot wide riparian feature. The stream segment is about 274 feet in length and is bounded to the north and west by industrial and residential development. Some land to the south and east is undeveloped, but the stream is culverted as it passes beneath that area.

S-27 is a dense thicket, dominated by Pacific Willow, Black Cottonwood, Maple species, Alder species, and Hazelnut trees. At the time the stream was assessed (July 2009) the feature was sufficiently shrouded by vegetation that the consultants noted that they "could not see the bottom of the drainage due to a steep slope and Salix sp. thicket."

No known fish survey was been conducted for S-27. It is not shown on ODFW maps of fish-bearing streams. The distance and lack of open connection to the Glenwood Slough and the Willamette River argue against this being classified as a fish-bearing stream.

**Site:** S28

**Type:** Riparian

**Acres:** .73

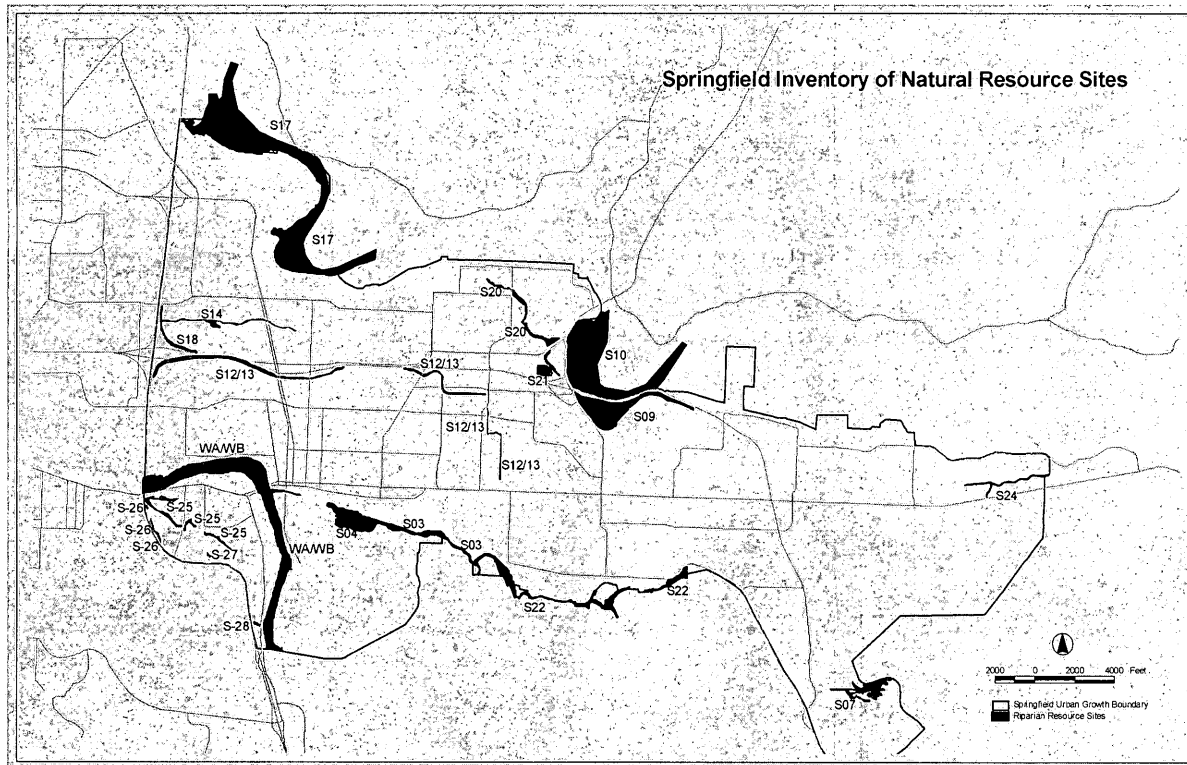
**WHA score:** 61

**WHA source:** Washburn

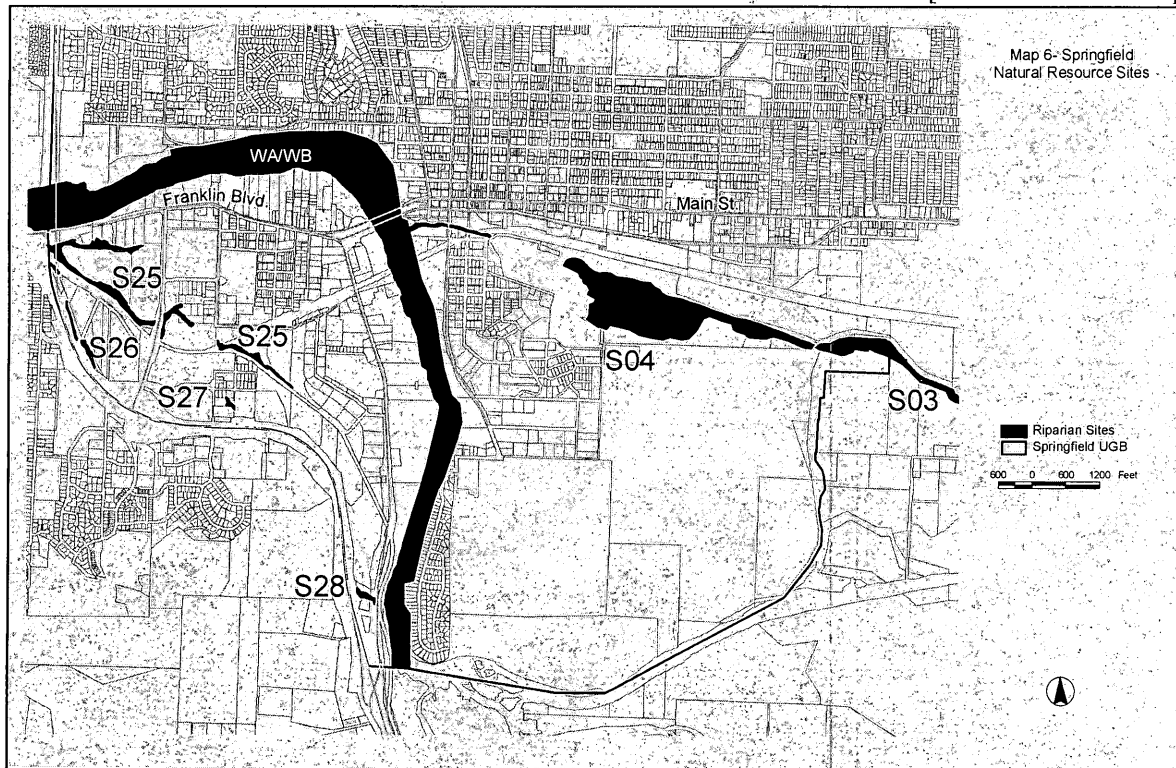
**Area map(s):** 6

**Description:** S-28 is a narrow stream that meanders through a wetland area that is vegetated by willow thickets and Reed Canary grass. It is sandwiched between the ODOT right-of-ways for the I-5 and McVay Hwy. The system is fed by a storm culvert from under the freeway and exits through a storm culvert under McVay Hwy. and into the Willamette River.

The dominant riparian tree species include Oregon Ash, Douglas Fir, Red-Osier Dogwood, Black Cottonwood, Indian Plum, White Oak, and Oregon Maple.



[Insert 11"x 17" map]



[Insert 11"x 17" map]

## Exhibit C: Page Inserts for the Springfield Natural Resources Study

Table 3-1. Springfield Inventory of Natural Resource Sites [Insert at pg. 22]

Site #	Acres	Tier 1 Significance Criteria Met	Tier 2 WHA Score	Quality Ranking	Site Name
S03 <sup>1</sup>	29.7	1,2,3,4	61-62	High	Mill Race A (Rural)
S04	42.9	2,3,4,6	40-41	Moderate	Mill Race B (Urban)
S07	23.9	1,2	34	Moderate	Brand S/Natron
S09	71.9	1,2,4	50	High	Weyerhaeuser B
S10 <sup>1</sup>	195.0	1,4,6	70	High	Weyerhaeuser A
S12/13	39.1	2,4	45 (Trees) 36 (No Trees)	High Moderate	Q Street Ditch
S14	2.4	2,4	35	Moderate	Guy Lee
S17 <sup>1</sup>	347.2	1,2,4,6	67	High	Maple Island Slough/ McKenzie River
S18	13.4	2,4	22-23	Moderate	SCS Channel #6
S20	19.6	1,2,4	67	High	Irving Slough North
S21	13.7	1,2,4	47	High	South Irvine Slough and Pond
S22 <sup>1</sup>	44.9	1,2,4	67	High	Jasper Road Slough
S24	8.0	2,3,4	55	High	Gray Creek
WA/WB	628.2	1,2,3,4,6	72-74 (Natural) 64-66 (Urban)	High	Willamette River
E39	23.8	1,4,5	46-47	High	Glenwood Slough
S25	12.30	1,4,5	46-47	High	Glenwood Slough
S26	1.56	1,4	17-57	High	Riverview/Augusta Channel
S27	.33	4	45	High	Petersen Equipment Daylighted Culvert
S28	.73	1,4	61	High	S. McVay Hwy. Channel
Total	1518.62				

**4.4 Springfield's Locally Significant Wetlands [Insert at pg. 26]****McKenzie River Basin Wetlands**

Site Number	OFWAM Significance Rationale	Acres	USFWS Classification(s)
<b>M4</b>	Special Interest for Protection: Wetland inhabited by a species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	5.02	PEM
<b>M5</b>	Provides diverse wildlife habitat and hydrologic control function is intact.	9.00	PFO/PSS/PEM
M14	Provides diverse wildlife habitat.	33.45	PEM/PFO
M16a-c	<b>M16a:</b> Water quality and hydrologic functions are intact. <b>M16b:</b> Hydrologic function is intact. <b>M16c:</b> Hydrologic Function is intact	13.96	PFO/POW/RLP/PEM
<b>M20</b>	Provides diverse wildlife habitat and water quality is intact	0.52	RLP
<b>M26</b>	Provides diverse wildlife habitat; provides recreational and educational opportunities;	1.85	PFO/PEM/PSS
M28	Special Interest for Protection- Mitigation Site	1.51	PEM
<b>M29</b>	Special Interest for Protection- Wetland inhabited by a species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	1.08	PFO/PEM
M30	Water quality function is intact	6.49	PFO/PEM/POW
M33a	Hydrologic control function is intact	3.39	PEM
McKenzie Basin Acres		76.27	

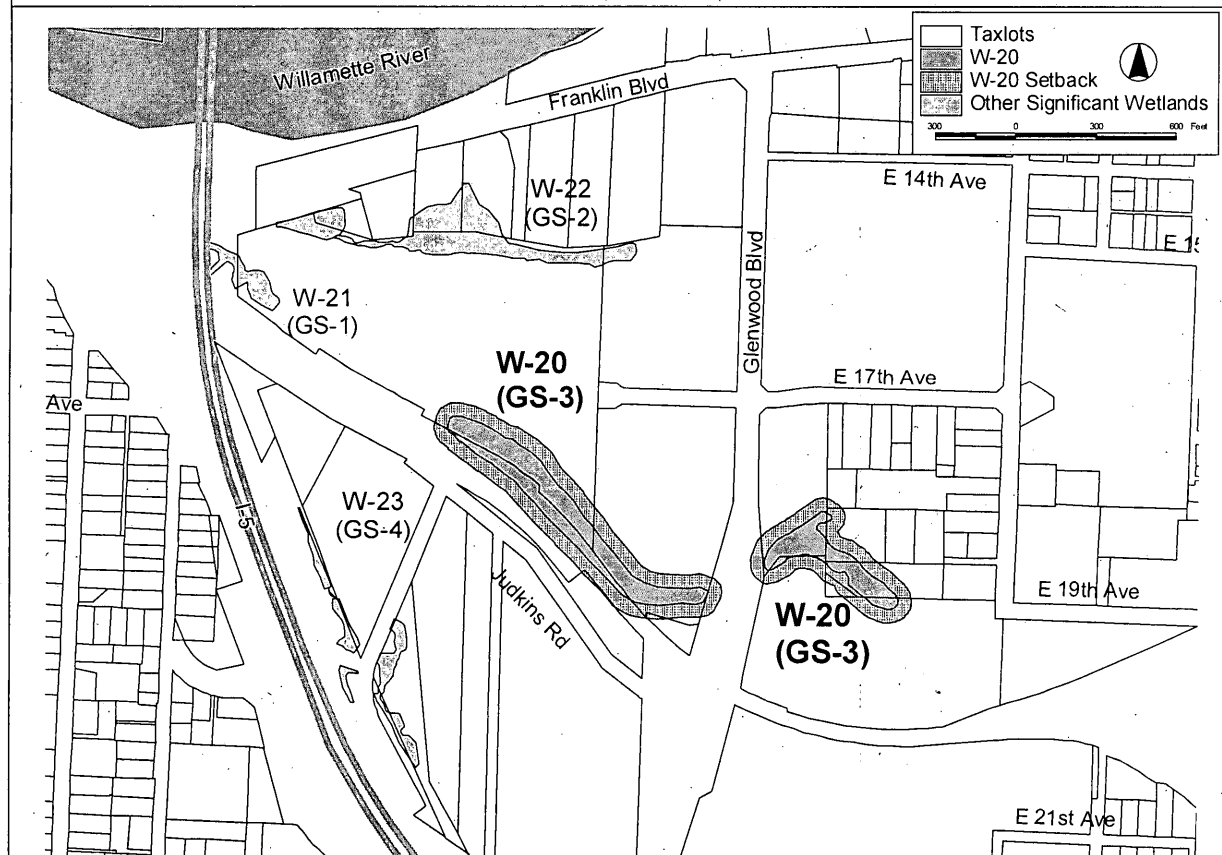
**Willamette River Basin Wetlands**

Site Number	OFWAM Significance	Acres	USFWS Classification(s)
<b>W2</b>	Special Interest for Protection -Wetland inhabited by a species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	0.90	PEM
W3a	Water quality function is intact	15.30	RLP
W4a	Water quality function is intact	.67	PFO
<b>W12</b>	Water quality and hydrologic functions are intact	1.42	PFO
<b>W16</b>	Water quality and hydrologic functions are intact	1.46	PFO/PEM
<b>W18a</b>	Water quality and hydrologic functions are intact	128.80	PEM/PFO
<b>W19</b>	Hydrologic control function is intact	41.65	POW/PFO
<b>W20</b>	<del>Water quality and hydrologic functions are intact</del>	<del>3.39</del>	<del>PSS/PAB</del>
W20	Water quality and hydrologic functions are degraded	3.73	PSS/PUB
W21	Water quality and hydrologic functions are degraded	.47	PSS
W22	Water quality and hydrologic functions are degraded	2.53	PFO
W23	Water quality and hydrologic functions are degraded	.87	PEM
W24	Water quality and hydrologic functions are degraded	.51	PFO
Willamette Basin Acres		201.7	
Total acreage for all Locally Significant Wetlands		277.97	

[Insert W-20 through W-24 at pg. 190]

Site: <b>W-20</b> <b>(GS-3)</b>	Acres: 3.73	OFWAM: Locally Significant  Wetland is within ¼ mile of DEQ 303 (d) listed water body  Wetland has a direct surface water connection to a salmonid stream  <b>Moderate Quality Wetlands</b>	Associated Inventoried Riparian Resource?  Yes: S-25  WHA Score: 46-47  High Quality Resource
	Cowardin Class:  Palustrine Scrub-Shrub (PSS), Wetland with <30% canopy cover of shrubs or small trees  Palustrine Unconsolidated Bottom (PUB) Wetland with <30% vegetation cover and a surface with >25% of the particles smaller than stones.		

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-20 is associated with the Glenwood Slough (S-25, formerly E-39). The Slough is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the Slough also protects W-20. Any portion of W-20 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under the provisions of SDC 4.3-117.



**Description:**

W-20 is a Palustrine Shrub-Scrub wetland. It is part of a system known as the Glenwood Slough. It flows northwest into W-21 prior to being culverted and flowing into the Willamette River. W-20 is bisected by Glenwood Blvd, but is still hydrologically connected by a culvert. The Slough is a topographic bowl. Hydrologic sources include stormwater from adjacent impervious surfaces, in addition to groundwater and upslope surface water. A portion of W-20 was previously delineated (WD96-0375).

Dominant Wetland Vegetation			
Trees/ Shrubs		Vines/ Herbs	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Mentha arvensis</i>	Field mint
<i>Salix sitchensis</i>	Sitka Willow	<i>Biden sp.</i>	Begger's tick.
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Juncus effusus</i>	Soft Rush
		<i>Carex leptopoda</i>	Short-Scale Sedge

Adjacent upland species: *Symphoricarpos albus*, *Rubus discolor*, *Cornus stolonifera*, *Rubus ursinus*, *Corylus cornuta*, *Fraxinus latifolia*, *Carex leptopoda*, *Dipsacus sylverstris*, *Tolmiea menziesii*

<b>Soils—Mapped Series</b>	Chehalis silty clay loam
<b>Hydrologic Source</b>	Groundwater

**Wetland and Impact Area Summary**

Wetland Acreage	3.73
Impact Area Acreage	11.74
Combined Wetland and Impact Area	15.50
Vacant Acres within the Combined Area	3.73
Number of Parcels Affected	14
Combined Parcel Acreage	51.26

**Conflicting Uses by Acre and Zoning District**

SITE ID	LDR	PLO	LMI	TOTAL ACRES
W-20	.11	0	2.88	*2.99
W-20 Impact Area	1.07	.89	9.78	11.74
Total	1.18	.92	12.66	14.73

\*This number varies from the total wetland acreage since portions of the wetland and its impact area are within railroad and street right-of-way which have no zoning.



### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LDR	PLO	LMI	TOTAL ACRES
W-20	0	0	.13	.13
W-20 Impact Area	0	.89	2.71	3.60
Total	0	.89	2.84	3.73

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **Yes.**

W-20 is associated with the Glenwood Slough (S-25, formerly E-39). The Slough is a tributary to a water quality limited watercourse (Willamette River) and is protected by a 50-foot setback and a site plan review requirement.

The Glenwood Refinement Plan includes policies that give direction for environmental design affecting S-25 (formerly E-39). The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

#### Site Specific ESEE Analysis for W-20

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

W-20 is rated as a "Moderate Quality Wetland." The wetland overlaps with a riparian resource site, S-25. S-25 is rated as a "High Quality Resource" site with a WHA score of 46-47. The OFWAM analysis concluded that the wetland's water quality and hydrologic control functions are impacted or degraded. The resource provides habitat for some species, although the fish habitat is degraded. Fully allowing conflicting uses would mean the loss of what little function and habitat that W-20 does provide.

#### Social Consequences

The OFWAM analysis indicates that W-20 is not aesthetically pleasing, nor is it appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. The site has moderate potential for enhancement which may make it more of a community amenity.

## Economic Consequences

The OFWAM analysis indicates that the water quality and hydrologic control functions of the resource are already degraded. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 3.73 acres of vacant industrial land within the combined wetland and impact area boundaries.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-20 is associated with the Glenwood Slough (S-25, formerly E39). The slough is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects W-20. Any portion of W-20 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under provisions of SDC Section 4.3-117.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	PLO	LMI	TOTAL ACRES
W-20	0	.13	.13
W-20 50-ft. Setback	.03	.67	.70
Total	.03	.80	.83

About .13 acres of W-20 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 1 lot. Limiting conflicting uses would allow some development to occur within the wetland area where the developer could show how the essential functions of the wetland could be preserved or enhanced. A 50-foot development setback is already required for the wetland under Section 4.3-115 of the Springfield Development Code. No additional setback is proposed.

A 50-foot setback would affect .67 acres of vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC 4.3-115.

Employing low impact development practices within 150 feet of the wetland could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC 4.3-115.

### Reduction in the Buildable Land Inventory:

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as “Vacant,” or “Redevelopable.” These classifications are not the same used by the Lane County Assessor’s Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting W-20 and its 50-foot setback area from future development effectively reduces the CIBL inventory by a total of .73 acres and the RLS by a total of .44 acres, for a total of 1.17 acres.

### Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories

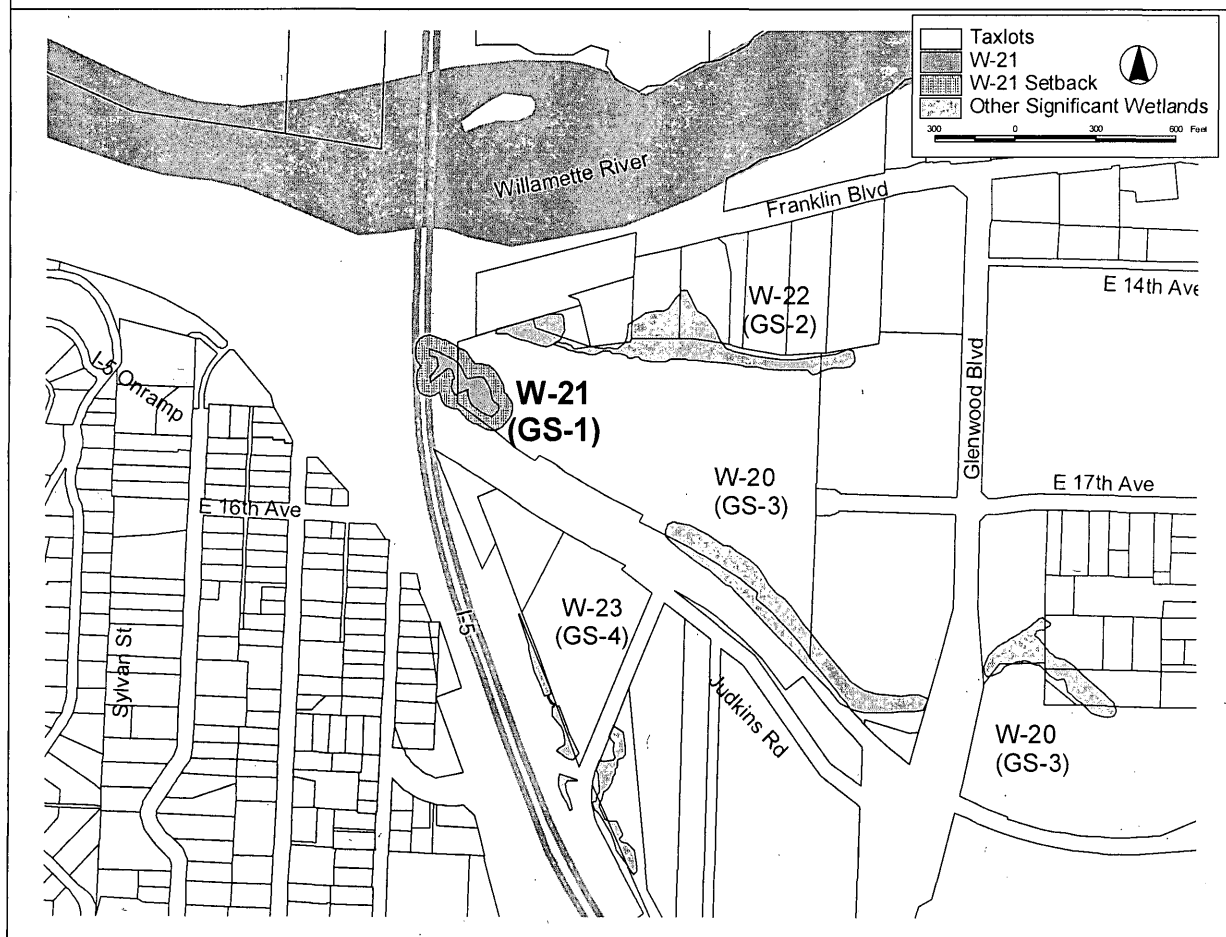
Site W-20 Zoning	Redevelopable	Vacant	Total Acres
LDR	.44	0	.44
LMI	.71	.02	.73
<b>Total Acres</b>	1.15	.02	1.17

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

A 50-foot development setback is required under stormwater provisions of the Springfield Development Code, and thus the 1.17 impact of protecting W-20 with the setback is not attributed to this report.

Site: <b>W-21</b> <b>(GS-1)</b>	Acres: .47	<b>OFWAM: Locally Significant</b>	<b>Associated Inventoried Riparian Resource?</b>
	<b>Cowardin Class:</b> Palustrine Scrub Shrub (PSS) Wetland with <30% canopy cover of shrubs or small trees.	Wetland is within ¼ mile of DEQ 303 (d) listed water body  Wetland has a direct surface water connection to a salmonid stream  <b>Moderate Quality Wetlands</b>	Yes: S-25  WHA Score: 46-47  High Quality Resource

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-21 is associated with the Glenwood Slough (S-25). The slough is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects W-21. Any portion of W-21 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under the provisions of SDC 4.3-117.



**Description:**

Wetland W-21 is .47 acres and classified as a Palustrine Shrub-Scrub (PSS) wetland. The wetland is located under and east of the Interstate 5 Bridge just south of Franklin Blvd. W-21 was delineated in 2003 (WD2003-0273) as part of the ODOT's I-5 bridge project and Willamette River trail. The west portion was impacted by construction of the I-5 temporary detour bridge. W-21 is bounded to the south by railroad tracks. Glenwood Slough flows through the wetland as do several channels used to convey stormwater. The wetland is less than one-half acre and is a judged locally significant wetland because of its hydrologic connection to the Willamette River. It is also connected to W22 and W23.

Dominant Wetland Vegetation			
Trees/ Shrubs		Vines/ Herbs	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Carex obnupta</i>	Slough Sedge
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Ranunculus repens</i>	Creeping Butter-Cup
<i>Cornus stolonifera</i>	Red-Osier Dogwood		
<i>Salix lasiandra</i>	Pacific Willow		

Adjacent upland species: *Populus trichocarpa*, *Alnus rubra*, *Fraxinus latifolia*, *Cornus stolonifera*, *Robinia pseudoacacia*, *Rubus discolor*, *Cytisus scoparius*, *Festuca arundinacea*, *Plantago lanceolata*, *Lathyrus latifolius*, *Daucus carota*, *Cirsium arvense*, *Dipsacus sylvestris*, unidentified mixed grasses

<b>Soils—Mapped Series</b>	Chehalis silty clay loam, Pengra-Urban land complex
<b>Hydrologic Source</b>	Groundwater

**Wetland and Impact Area Summary**

Wetland Acreage	.47
Impact Area Acreage	4.54
Combined Wetland and Impact Area	5.01
Vacant Acres within the Combined Area	0
Parcels Affected (Including Impact Area)	2
Combined Parcel Acreage	43.54

**Conflicting Uses by Acre and Zoning District**

SITE ID	LMI	TOTAL ACRES
W-21	.31	*.31
W-21 Impact Area	4.54	4.54
Total	4.85	4.85

\*Portions of the wetland fall within right-of-way which has no zoning designation; thus this figure is less than that shown above for wetland acreage.

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LM	TOTAL ACRES
W-21	0	0*
W-21 Impact Area	0	0*
Total	0	0*

\*W-21 lies within County owned land that has been developed as a Solid Waste Transfer Site. The wetland is located within ODOT and Union Pacific right-of-way that bisects the County property. What appears to be vacant resource land within the County parcel is in fact committed for transportation uses.

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **Yes.**

W-21 is associated with the Glenwood Slough. The Slough is a tributary to a water quality limited watercourse (Willamette River) and is protected by a 50-foot setback and a site plan review requirement. This 50-foot setback also protects W-21. Any portion of W-21 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under provisions of SDC Section 4.3-117.

The Glenwood Refinement Plan includes policies that give direction for environmental design affecting S-25 (formerly E-39). The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

#### Site Specific ESEE Analysis for W-21

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

W-21 is rated as a "Medium Quality Wetlands." The wetland overlaps with a riparian resource site, E-39. E-39 is rated as a "High Quality Resource" site with a WHA score of 46-47. The OFWAM analysis indicates that the wetland's water quality and hydrologic control functions are degraded. The resource provides habitat for some species, although the fish habitat is degraded. Fully allowing conflicting uses would mean the loss of what little function and habitat that W-21 does provide.



## Social Consequences

The OFWAM analysis concluded that W-21 is not aesthetically pleasing, nor is it appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. The site has high potential for enhancement which may make it more of a community amenity.

## Economic Consequences

The OFWAM analysis indicates that the water quality and hydrologic control functions of the resource are already degraded. These functions could be mimicked using engineered facilities, but at a significant cost. Portions of the affected tax lot have been developed as Lane County's Glenwood Solid Waste Transfer Site. The wetland itself is located beneath the Willamette River I-5 Bridge and adjacent to the Union Pacific Railway right-of-way. Fully protecting the resource site would mean no loss to the remaining vacant industrial land within the combined wetland and impact area boundaries.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-21 is associated with the Glenwood Slough. The slough is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects W-21. Any portion of W-21 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under provisions of SDC Section 4.3-117.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	LMI	TOTAL ACRES
W-21	0	0
W-21 50-ft. Setback	0	0
Total	0	0

The land containing W-21 is not classified as vacant by the Lane County Assessor's Office. Limiting conflicting uses would allow some re-development to occur within the wetland area where the developer could show how the essential functions of the wetland could be preserved or enhanced. A 50-foot development setback is already required for the wetland under SDC Section 4.3-115. This 50-foot setback protecting the slough also protects W-21. Any portion of W-21 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback.

A 50-foot setback would not affect any vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-115.

Employing low impact development practices within 150 feet of the wetland could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC Section 4.3-115.

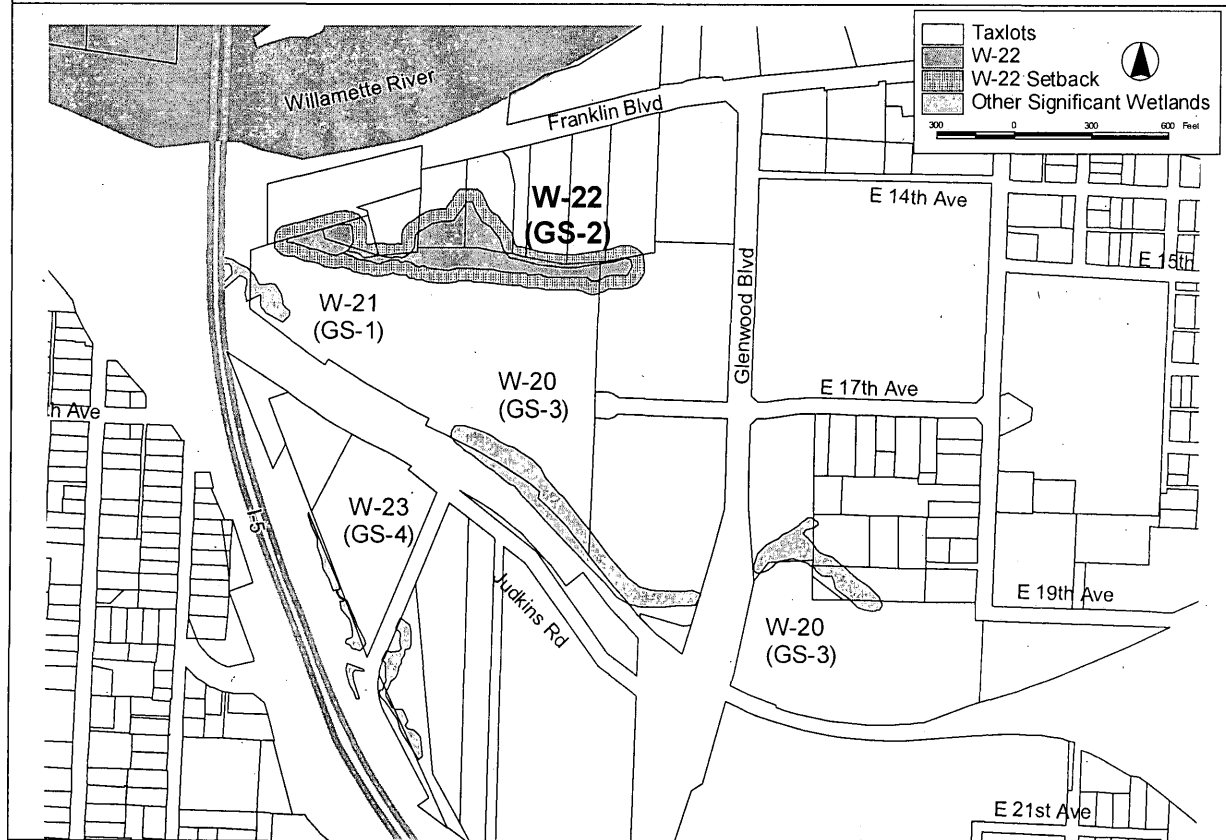
**Reduction in the Buildable Land Inventory:**

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as "Vacant," or "Redevelopable." These classifications are not the same used by the Lane County Assessor's Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Neither the CIBL nor the RLS showed W-21 or its setbacks as inventoried land. Protecting W-21 will not cause a reduction in those inventories.

Site: <b>W-22</b> <b>(GS-2)</b>	Acres: 2.53	<b>OFWAM: Locally Significant</b>  Wetland is within ¼ mile of DEQ 303 (d) listed water body  Wetland has a direct surface water connection to a salmonid stream  <b>Moderate Quality Wetlands</b>	<b>Inventoried Riparian Resource?</b>  Yes: S-25  WHA Score: 46-47  High Quality Resource
	<b>Cowardin Class:</b>  Palustrine Forested (PFO) Wetland with trees growing in standing water or saturated soils, or small wetlands entirely beneath an overhanging forest canopy.		

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-22 is associated with the Glenwood Slough (S-25). The slough is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects W-22. Any portion of W-22 not protected by the Glenwood Slough 50-foot setback should be protected by a 25-foot setback under the provisions of SDC 4.3-117.



**Description:**

Wetland W-22 is 2.53 acres and is classified as a Palustrine Forested wetlands (PFO). W-22 is a PFO system located with a drainage that flows through the southern portion. Portions of the wetland have been previously delineated (WD's 03-0273, 00-0102, 98-0051). PHS did not have access to the easternmost and southern portions of W-22 and boundaries were determined through off-site observations, previous delineations, and aerial photography.

Dominant Wetland Vegetation			
Trees/ Shrubs		Vines/ Herbs	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Carex obnupta</i>	Slough Sedge
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Biden sp.</i>	Begger's tick.
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Juncus effusus</i>	Soft Rush
<i>Salix lasiandra</i>	Pacific Willow	<i>Lapsana communis</i>	Nipplewort
<i>Alnus Ruba</i>	Red Alder		
<i>Rosa piscocarpa</i>	Clustered Wild Rose		

Adjacent upland species: *Acer macrophyllum*, *Fraxinus latifolia*, *Populus trichocarpa*, *Rubus discolor*, *Symphoricarpos alba*, *Corylus cornuta*, *Cytisus scoparium*, *Holodiscus discolor*, *Hypericum perforatum*, *Festuca arundinacea*, mowed unidentified grasses

<b>Soils—Mapped Series</b>	Chehalis silty clay loam
<b>Hydrologic Source</b>	Groundwater

**Wetland and Impact Area Summary**

Wetland Acreage	2.53
Impact Area Acreage	12.22
Combined Wetland and Impact Area	14.75
Vacant Acres within the Combined Area	2.84
Parcels Affected (Including Impact Area)	12
Combined Parcel Acreage	67.43

**Conflicting Uses by Acre and Zoning District**

SITE ID	LMI	TOTAL ACRES
W-22	2.53	2.53
W-22 Impact Area	12.22	12.22
Total	14.75	14.75

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LM	TOTAL ACRES
W-22	.56	.56
W-22 Impact Area	2.28	2.28
Total	2.84	2.84

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **Yes.**

W-22 is associated with the Glenwood Slough-North Channel (S-25). The channel is a tributary to a water quality limited watercourse (Willamette River) and is protected by a 50-foot setback and a site plan review requirement.

The Glenwood Refinement Plan includes policies that give direction for environmental design affecting S-25 (formerly E-39). The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

#### Site Specific ESEE Analysis for W-22

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

W-22 is rated as a "Moderate Quality Wetland." The wetland overlaps with a riparian resource site, S-25. S-25 is rated as a "High Quality Resource" site with a WHA score of 46-47. The OFWAM analysis concluded that W-22's water quality and hydrologic control functions are impacted or degraded. The resource provides habitat for some wildlife species, although the fish habitat is degraded. Fully allowing conflicting uses would mean the loss of what little function and habitat that W-22 provides.

#### Social Consequences

The OFWAM analysis indicates that W-22 is not aesthetically pleasing, nor is it appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. The site has moderate potential for enhancement which may make it more of a community amenity.

## Economic Consequences

The OFWAM analysis indicates that the water quality and hydrologic control functions of the resource are already degraded. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 2.84 acres of vacant industrial land within the combined wetland and impact area boundaries.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. W-22 is associated with the Glenwood Slough-North Channel (S-25, formerly E39). The channel is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the channel also protects W-22.

A small portion of W-22 (about .06 acres) is not protected by the 50-ft setback provided by the stormwater WQLW standards found in SDC Section 4.3-115. This unprotected segment of W-22 should be covered by a 25-foot development setback and the protections afforded by SDC Section 4.3-117. Any portion of W-22 not protected by the Glenwood Slough-North Channel 50-foot setback should be protected by a 25-foot setback.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	LMI	TOTAL ACRES
W-22	.56	.56
W-22 25 to 50-ft. Setback	.79	.79
Total	1.35	1.35

About .56 acres of W-22 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 3 lots. Limiting conflicting uses would allow some development to occur within the wetland area where the developer could show how the essential functions of the wetland could be preserved or enhanced. A 50-foot development setback is already required for the wetland under SDC Section 4.3-115. A small portion of W-22 (about .05 vacant acres) is not protected by the 50-ft setback, but is protected by a 25-foot setback under the provisions of SDC Section 4.3-117. A 25-foot setback applied to the unprotected wetland area affects about .09 acres of the total setback acres shown for W-22.

A 25 to 50-foot setback would affect .79 acres of vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other



open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-115.

Employing low impact development practices within 150 feet of the wetland could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC Section 4.3-115.

#### **Reduction in the Buildable Land Inventory:**

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as "Vacant," or "Redevelopable." These classifications are not the same used by the Lane County Assessor's Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting W-22 and its 25-50 foot setback area from future development effectively reduces the CIBL inventory by a total of 2.26 acres.

#### **Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories**

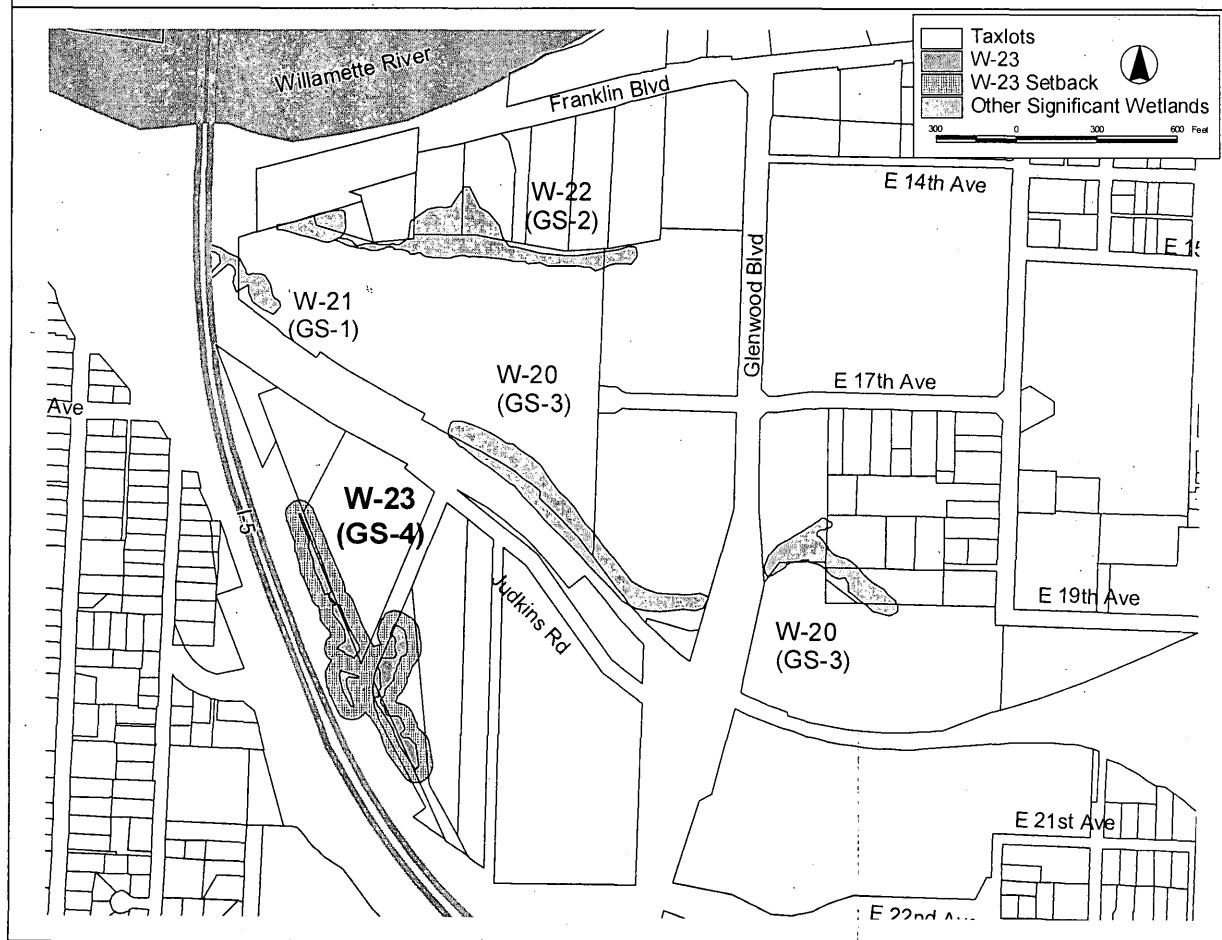
<b>Site W-22 Zoning</b>	<b>Redevelopable</b>	<b>Vacant</b>	<b>Total Acres</b>
LMI	.91	1.35	2.26
<b>Total Acres</b>	.91	1.35	2.26

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

A 50-foot development setback is already required under stormwater provisions of the Springfield Development Code, and thus the 2.26 acre impact of protecting W-22, including its setback, is not attributed to this report.

Site: <b>W-23</b> <b>(GS-4)</b>	Acres: .87	OFWAM: Locally Significant  Wetland is within ¼ mile of DEQ 303 (d) listed water body  <b>Moderate Quality Wetlands</b>	Associated Inventoried Riparian Resource?  Yes: S-26  WHA Score: 17-57  High Quality Resource Site
	Cowardin Class:  Palustrine Emergent (PEM) Herbaceous plants growing in standing water or saturated soils.		

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. Maintain an average 25-foot development setback from the wetland. The adjacent Riverview/Augusta Channel (S-26) is protected by a 50-foot development setback and site plan review standards described in Section 4.3-115 of the Springfield Development Code. Portions of this setback overlap with the recommended 25-foot setback for W-23. Any portion of W-23 not protected by the Riverview/Augusta Channel's 50-foot setback should be protected by a 25-foot setback under the provisions of SDC 4.3-117.



**Description:**

Wetland W-23 is .87 acres and classified as Palustrine Emergent (PEM) wetland. W-23 is a series of small PEM wetlands located within the ODOT ROW and on private property. The wetlands were delineated in 2007 for the I-5 bridge project (WD08-0140). The wetlands are located at the bottom of a steep slope. Hydrology from the wetlands flows into a channel that drains to the northwest into the Willamette River. The wetlands located in the ODOT ROW are mowed and maintained.

By state mandate, the Oregon Freshwater Wetland Assessment Methodology (OFWAM) is used to determine if a wetland is "locally significant" under Oregon law. W-23 fails all criteria for the significance test with the exception that portions of the wetland are within ¼ mile of a water body listed by DEQ as a water-quality limited water body, and the wetland has an impacted or degraded water quality function.

**Dominant Wetland Vegetation**

Trees/ Shrubs		Vines/ Herbs	
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Mentha arvensis</i>	Wild mint
		<i>Biden sp.</i>	Begger's tick.
		<i>Juncus effusus</i>	Soft Rush
		<i>Carex stipata</i>	Sawbeak Sedge
		<i>Bromus hordeaceus</i>	Soft Brome
		<i>Holcus Lanatus</i>	Common Velvet Grass
		<i>Plantago Lanceolata</i>	English Plantain
		<i>Festuca arundinacea</i>	Tall Fescue
		<i>Poa sp.</i>	Bluegrass species

Adjacent upland species: *Populus alba*, *Rubus discolor*, *Daucus carota*, *Cytisus scoparium*, *Vicia sp.*, *Festuca arundinacea*, *Taraxacum officinale*, *Trifolium pretense*

**Soils**

<b>Soils—Mapped Series</b>	Dixonville-Philomath-Hazelair Complex
<b>Hydrologic Source</b>	Groundwater

**Wetland and Impact Area Summary**

Wetland Acreage	.87
Impact Area Acreage	5.34
Combined Wetland and Impact Area	6.21
Vacant Acres within the Combined Area	2.05
Parcels Affected (Including Impact Area)	5
Combined Parcel Acreage	12.67

### Conflicting Uses by Acre and Zoning District

SITE ID	LMI	TOTAL ACRES
W-23	.53	*.53
W-23 Impact Area	5.34	5.34
Total	5.87	5.87

\*Portions of the wetland fall within right-of-way which has no zoning designation; thus this figure is less than that shown above for wetland acreage.

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LMI	TOTAL ACRES
W-23	.49	.49
W-23 Impact Area	1.56	1.56
Total	2.05	2.05

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **Yes, in part. Portions of W-23 are not currently protected.**

W-23 is adjacent to, but a part of the Riverview/Augusta Channel (S-26). The Channel is a tributary to a water quality limited watercourse (Willamette River) and is protected by a 50-foot setback and by a site plan review requirement.

The Glenwood Refinement Plan includes policies that give direction for environmental design. The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

#### Site Specific ESEE Analysis for W-23

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

W-23 is rated as a "Moderate Quality Wetlands." The wetland's water quality and hydrologic control functions are impacted or degraded. The resource provides habitat for some species, but the OFWAM analysis concludes that it does not provide a diverse wildlife habitat. Fully

allowing conflicting uses would mean the loss of what little function and habitat that W-23 provides.

### Social Consequences

W-23 is not aesthetically pleasing, nor is it appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. The OFWAM analysis noted that the site is not appropriate for recreational use. The wetland does not have any point of access. The site has some potential for enhancement which may make improve its wetland function.

### Economic Consequences

Fully allowing conflicting uses would mean the loss of the water quality and hydrologic control functions of the resource. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 1.56 acres of vacant industrial land within the combined wetland and impact area boundaries.

### Energy Consequences

None of note.

### Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the wetland. Maintain an average 25-foot development setback from the wetland. The adjacent Riverview/Augusta Channel is protected by a 50-foot development setback and site plan review standards described in Section 4.3-115 of the Springfield Development Code. Portions of this setback overlap the recommended 25-foot setback for W-23. Any portion of W-23 not protected by the Riverview/Augusta Channel 50-foot setback should be protected by a 25-foot setback.

### Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

#### Impact on Vacant Acreage by Zoning District

SITE ID	LMI	TOTAL ACRES
W-23	.49	.49
W-23 25-ft. Setback	.68	.68
Total	1.17	1.17

About .49 acres of W-23 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 2 lots. Limiting conflicting uses would allow some development to occur within the wetland area where the developer could show how the essential functions of the wetland could be preserved or enhanced.

A 25-foot setback would affect .68 acres of vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under Section 4.3-115 of the Springfield Development Code.

Employing low impact development practices within 150 feet of the wetland could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in Section 4.3-115.

#### **Reduction in the Buildable Land Inventory:**

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as "Vacant," or "Redevelopable." These classifications are not the same used by the Lane County Assessor's Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting W-23 and its 50-foot setback area from future development effectively reduces the CIBL inventory by a total of 1.02 acres.

#### **Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories**

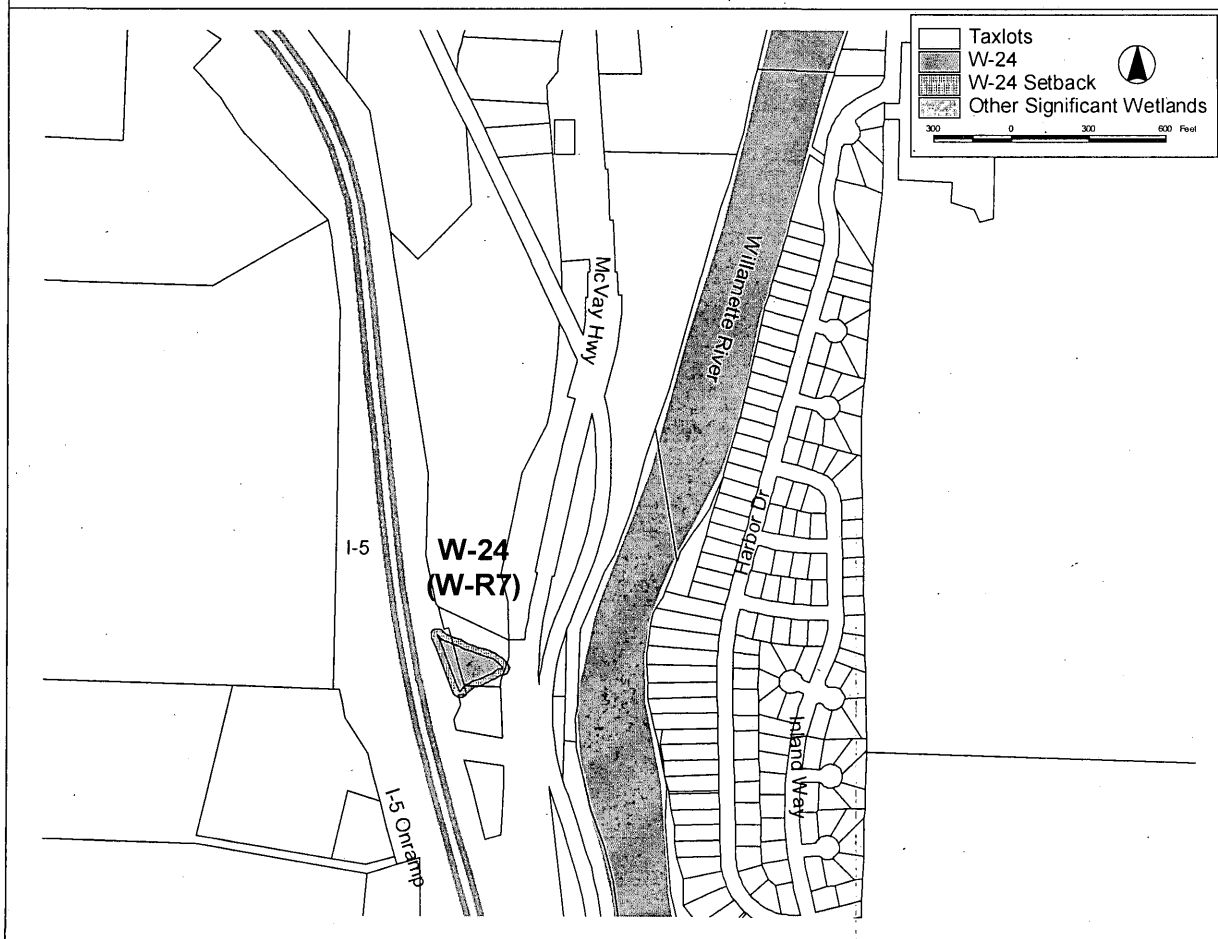
<b>Site W-23 Zoning</b>	<b>Redevelopable</b>	<b>Vacant</b>	<b>Total Acres</b>
LMI	.49	.53	1.02
<b>Total Acres</b>	.49	.53	1.02

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

A 50-foot development setback is required under stormwater provisions of the Springfield Development Code, and thus the 1.02 impact of protecting W-23 with the setback is not attributed to this report.

Site: <b>W-24</b> <b>(W-R7)</b>	Acres: .51	<b>OFWAM: Locally Significant</b>  Wetland is within ¼ mile of DEQ 303 (d) listed water body  <b>Medium Quality Wetlands</b>	<b>Associated Inventoried Riparian Resource?</b>  Yes: S-28  WHA Score: 61  High Quality Resource Site
	<b>Cowardin Class:</b> Palustrine Forested (PFO); Wetland with trees growing in standing water or saturated soils, or small wetlands entirely beneath an overhanging forest canopy.		

**Goal 5 Recommendation:** Limit conflicting uses that may impact the wetland. Maintain an average 25-foot development setback from the wetland. Allow development within the 150-foot impact area using low impact development practices that are appropriate for the soil, water table and other site characteristics.



**Description:**

W-24 is located at the bottom of surrounding steep slopes. There is a narrow intermittent drainage channel that flows through the middle of the wetland. This drainage continues east through a long culvert under McVay Hwy. and the railroad and out to the Willamette River. W-24 is located between I-5 and McVay Hwy. with residential land uses to the north and south.

Dominant Wetland Vegetation			
Trees/ Shrubs		Vines/ Herbs	
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Salix lasiandra</i>	Pacific Willow	<i>Oenanthe sarmentosa</i>	Water-Parsley
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Urtica dioica</i>	Stinging Nettles
		<i>Carex obnupta</i>	Slough Sedge
		<i>Equisetum arvense</i>	Field Horsetail

Adjacent upland species: *Acer macrophyllum*, *Rubus discolor*, *Festuca arundinacea*, *Daucus carota*, *Polystichum munitum*, *Dactylis glomerata*

<b>Soils—Mapped Series</b>	Dixonville-Philomath-Hazelair Complex
<b>Hydrologic Source</b>	Groundwater

**Wetland and Impact Area Summary**

Wetland Acreage	.51
Impact Area Acreage	1.69
Combined Wetland and Impact Area	2.20
Vacant Acres within the Combined Area	.86
Parcels Affected (Including Impact Area)	4
Combined Parcel Acreage	22.03

**Conflicting Uses by Acre and Zoning District**

SITE ID	LD	PL	TOTAL ACRES
W-24	.35	0	*.35
W-24 Impact Area	1.28	.41	1.69
Total	1.63	.41	2.04

\*Portions of the wetland fall within right-of-way which has no zoning designation; thus this figure is less than that shown above for wetland acreage.

**Conflicting Uses by Vacant Acre and Zoning District**

SITE ID	LD	PL	TOTAL ACRES
W-24	0	0	0
W-24 Impact Area	.53	.33	.86



SITE ID	LD	PL	TOTAL ACRES
Total	.53	.33	.86

### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **No.**

The Glenwood Refinement Plan includes policies that give direction for environmental design. The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

### Site Specific ESEE Analysis for W-24

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

### Environmental Consequences

W-24 is rated as a "Moderate Quality Wetlands." The wetland's water quality and hydrologic control functions are impacted or degraded. The resource provides habitat for some species, but the OFWAM analysis concludes that it does not provide a diverse wildlife habitat. Fully allowing conflicting uses would mean the loss of what little function and habitat that W-24 provides.

### Social Consequences

W-24 is isolated and not easily accessible to the public. It is not appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. The site has moderate potential for enhancement which may make it more of a community amenity.

### Economic Consequences

Fully allowing conflicting uses would mean the loss of the water quality and hydrologic control functions of the resource. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site and its impact area would mean the loss of .86 acres of vacant residential land within the combined wetland and impact area boundaries.

### Energy Consequences

None of note.

### Recommended Program for Protection

Limit conflicting uses that may impact the wetland. Maintain an average 25-foot development setback from the wetland. Allow development within the 150-foot impact area using low impact development practices that are appropriate for the soil, water table and other site characteristics.

### Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

#### Impact on Vacant Acreage by Zoning District

SITE ID	LD	PI	TOTAL ACRES
W-24	0	0	0
W-24 25-ft. Setback	.02	0	.02
Total	.02	0	.02

About .02 acres of W-24 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 3 lots. Limiting conflicting uses would allow some development to occur within the wetland area where the developer could show how the essential functions of the wetland could be preserved or enhanced.

A 25-foot setback would affect .02 acres of vacant residential land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-117.

Employing low impact development practices within 150 feet of the wetland could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC Section 4.3-115.

#### Reduction in the Buildable Land Inventory:

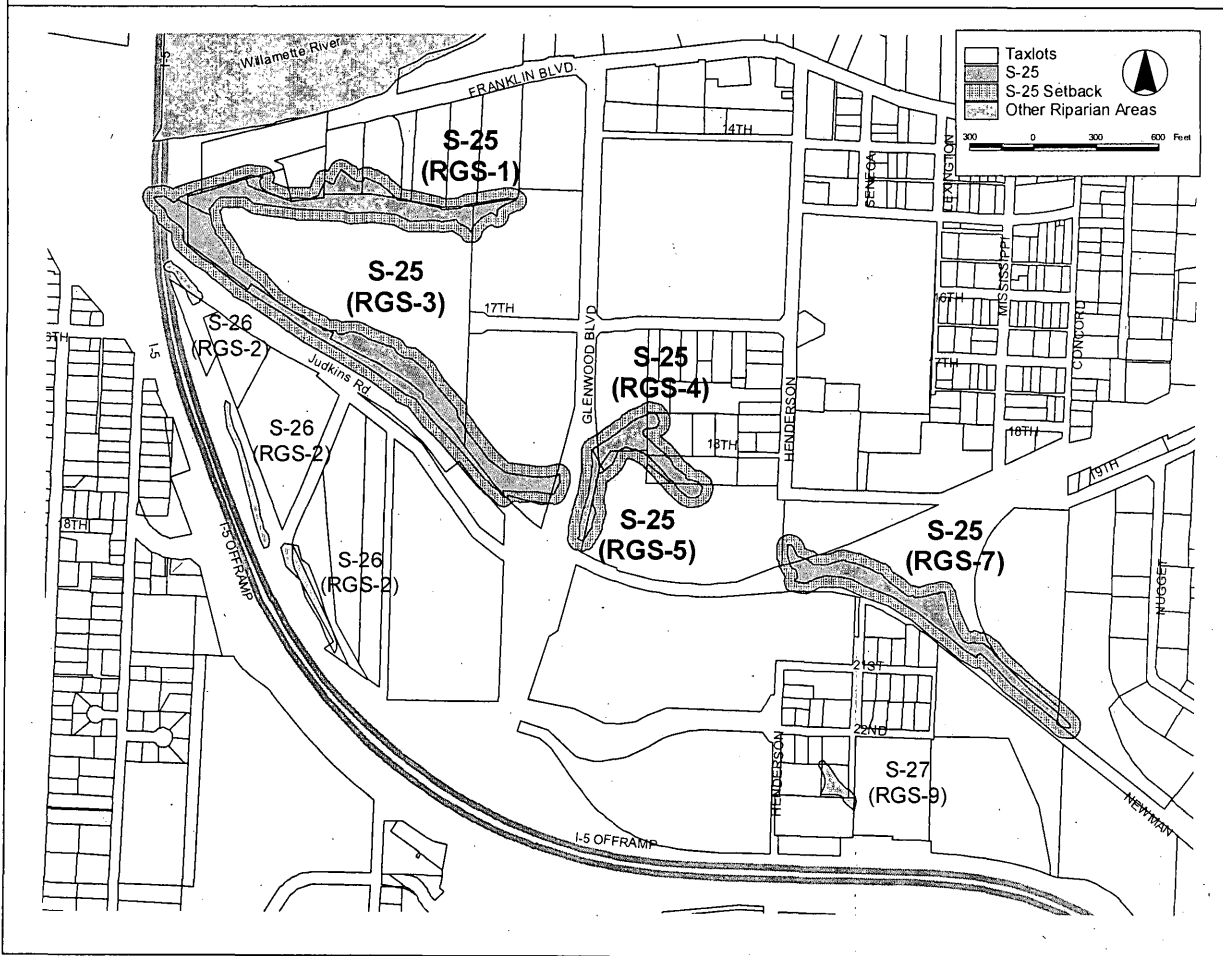
The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as "Vacant," or "Redevelopable." These classifications are not the same used by the Lane County Assessor's Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Neither the CIBL nor the RLS showed W-24 or its setbacks as inventoried land. Protecting W-24 will not cause a reduction in those inventories.

[Insert S-25 through S-28 at pg. 253]

Site:	Associated Wetlands:	Acres:	WHA Score:
<b>S-25</b> (Formerly E39) (RGS-1,3,4,5, and 7)	W-20, W-21, W-22 Moderate Quality Wetlands	12.30	46-47  High Quality Resource Site

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. S-25 is associated with the Glenwood Slough, the Glenwood North Channel and a section of the Moon Mt. System. The Slough and North Channel are protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects S-25. A 339 ft. segment of S-25 is not protected by the 50-ft setback provided by the stormwater WQLW standards found in SDC Section 4.3-115. This unprotected segment of S-25 should be covered by a 25-foot development setback and the protections afforded by SDC Section 4.3-117.



**Description:**

Site S-25 (formerly E-39) consists of segments of the Glenwood Slough—North Channel and a section of the Moon Mt. system near or adjacent to Interstate 5, Franklin Boulevard, Glenwood Boulevard and the Union Pacific Railroad tracks in the Glenwood area. S-25 is generally surrounded by industrial uses, railroad tracks and a highway.

The western portion of S-25 wraps around the Glenwood solid waste transfer station. At its west end, the slough passes under the Willamette River I-5 overpass. This western portion has been channelized with cement sides.

The portions of S-25 on either side of Glenwood Boulevard are more natural and contain significant riparian vegetation including willows (*Salix* spp.), black cottonwood (*Populus trichocarpa*), sedge (*Carex* spp.), rush (*Juncus* spp.), cattails (*Typha latifolia*), and reed canarygrass (*Phalaris arundinacea*). Interspersion with other natural areas is limited by I-5 and other adjacent roads, but S-25's proximity to the Willamette River may increase the number of wildlife species in the area. The Division of State Lands has determined that portions of this site are regulated wetlands (W-20, W-21, and W-22).

No fish survey was conducted for S-25 and it is not shown on ODFW maps of fish-bearing streams. The proximity and open connectivity to the Willamette River also suggests that fish are present in the Slough.

**Observed Vegetation**

Woody Vegetation		Herbaceous Vegetation	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Festuca arundinacea</i>	Tall Fescue
<i>Salix sitchensis</i>	Sitka Willow	<i>Plantago lanceolata</i>	English Plantain
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Daucus carota</i>	Queen Anne's Lace
<i>Rubus discolor</i>	Himalayan blackberry	<i>Aira caryophyllea</i>	Silver Hairgrass
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Lathyrus sp.</i>	Wild Pea
<i>Robinia pseudoacacia</i>	Black Locust	<i>Cirsium arvense</i>	Canada Thistle
<i>Rubus armeniacus</i>	Armenian Blackberry	<i>mixed grasses (unidentified)</i>	
<i>Acer macrophyllum</i>	Oregon Maple		

**Wetland Vegetation**

Trees/ Shrubs		Vines/ Herbs	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Mentha arvensis</i>	Field mint
<i>Salix sitchensis</i>	Sitka Willow	<i>Biden sp.</i>	Begger's tick.
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Juncus effusus</i>	Soft Rush
		<i>Carex leptopoda</i>	Short-Scale Sedge

### Soils

<b>Soils—Mapped Series</b>	Chehalis silty clay loam
<b>Hydrologic Source</b>	Groundwater

### Summary of Riparian Functional Assessment

Riparian ID	Reach Length	Stream/Pond Width	Riparian Width	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
RGS-1	1,681 ft.	120 ft.	50 ft.	H	H	H	M
RGS-3	2,706 ft.	50-75 ft.	100 ft.	H	L-M	H	M-H
RGS-4	780 ft.	50-75 ft.	50-75 ft.	H	M	H	H
RGS-5	339 ft.	2-6 ft.	75 ft.	M	M	H	M
RGS-7	1,669 ft.	8-10 ft.	120 ft.	H	L	H	M
<b>Total Length: 7185 ft.</b>			<b>Modal Average</b>	<b>H</b>	<b>M</b>	<b>H</b>	<b>M</b>

### Resource and Impact Area Summary

Resource Acreage:	12.30
Impact Area Acreage:	45.01
Combined Resource and Impact Area:	55.02
Vacant Acres within the Combined Area:	8.57
Parcels Affected (Including Impact Area):	32
Combined Parcel Acreage:	308.09

### Conflicting Uses by Acre and Zoning District

SITE ID	LDR	LMI	PLO	*Right-of-Way	TOTAL ACRES
S-25	.17	7.71		4.42	7.88
S-25 Impact Area	1.09	28.23	1.01	14.68	30.33
Total	1.26	35.94	1.01	16.81	38.21

\*Right-of-way does not typically have a zoning designation. As such, the right-of-way acreage shown for the conflicting use acreage is not counted towards the total. The right-of-way acreage is shown here because a large portion of the resource and its impact area are within ODOT and railroad right-of-ways.

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LDR	LMI	PLO	TOTAL ACRES
S-25	0	.67	0	.67
S-25 Impact Area	0	6.89	1.01	7.90
Total	0	7.56	1.01	8.57

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in Section 4.3-115 of the Springfield Development Code? **Yes.**

S-25 includes the Glenwood Slough, the Glenwood North Channel and a section of the Moon Mt. system. The Glenwood Slough and the North Channel are tributaries to a water quality limited watercourse (Willamette River) and are protected by a 50-foot setback and a site plan review requirement.

S-25 overlaps protected wetlands W-20, W-21, and W-22. The Glenwood Refinement Plan includes policies that give direction for environmental design affecting S-25. The Refinement Plan states, "Significant wetland areas in Glenwood shall be protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control," (Policy 1, pg. 92, Environmental Element).

#### Site Specific ESEE Analysis for S-25

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

With WHA scores ranging from 22 to 61 for five individual reaches of the stream, S-25 is rated as a high quality resource site. The Riparian Functional Assessment prepared by Pacific Habitat Services rated S-25's various reaches as well. The mode average of the assessment scores for S-25's Water Quality and Thermal Regulation Functions was "High." S-25's Flood Management and Wildlife Habitat functions average was "Medium."

Much of S-25 includes inventoried locally significant wetlands (W-20, W-21, and W-22). The water quality and hydrologic control functions of these wetland sites are impacted or degraded. The resource provides habitat for some wildlife species, although the fish habitat is degraded. Fully allowing conflicting uses would mean the loss of the riparian and wetland functions that S-25 provides.

## Social Consequences

S-25 is located in an area that is heavily impacted by existing industrial and residential development. The stream is not easily accessible to the public and it is not located near a school. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. For these reasons it is not appropriate for educational or recreational uses.

## Economic Consequences

Fully allowing conflicting uses would mean the loss of the riparian and wetland functions of the resource. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 7.56 acres of vacant industrial land within the combined resource and impact area boundaries.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. S-25 includes the Glenwood Slough, the Glenwood North Channel and a section of the Moon Mt. system. The Slough and the North Channel are protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the slough also protects S-25. A 339 ft. segment of S-25 is not protected by the 50-ft setback. This unprotected segment of S-25 should be covered by a 25-foot development setback and the protections afforded by SDC Section 4.3-117.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	PLO	LMI	TOTAL ACRES
S-25		.67	.67
*S-25 25/50-ft. Setback	.04	2.45	2.49
Total	.04	3.12	3.16

\*A 339-ft segment of S-25 falls outside of the 50-ft protection of the stormwater WQLW program. This segment is protected by a 25-ft. setback.

About .67 acres of S-25 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 5 lots. Limiting conflicting uses would allow some development to occur within the riparian resource area where the developer could show how the

essential functions of the riparian corridor could be preserved or enhanced. A 50-foot development setback is already required for the riparian area under SDC 4.3-115. No additional setback is proposed.

A 25-to-50-foot setback would affect 3.12 acres of vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-115.

Employing low impact development practices within 150 feet of the riparian area could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC 4.3-115.

#### **Reduction in the Buildable Land Inventory:**

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as “Vacant,” or “Redevelopable.” These classifications are not the same used by the Lane County Assessor’s Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting S-25 and its 25-50 foot setback area from future development effectively reduces the CIBL inventory by a total of 3.26 acres and the RLS by a total of 1.11 acres, for a total of 3.75 acres.

#### **Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories**

<b>Site S-25 Zoning</b>	<b>Redevelopable</b>	<b>Vacant</b>	<b>Total Acres</b>
LDR	.49		.49
LMI	2.15	1.11	3.26
<b>Total Acres</b>	2.64	1.11	3.75

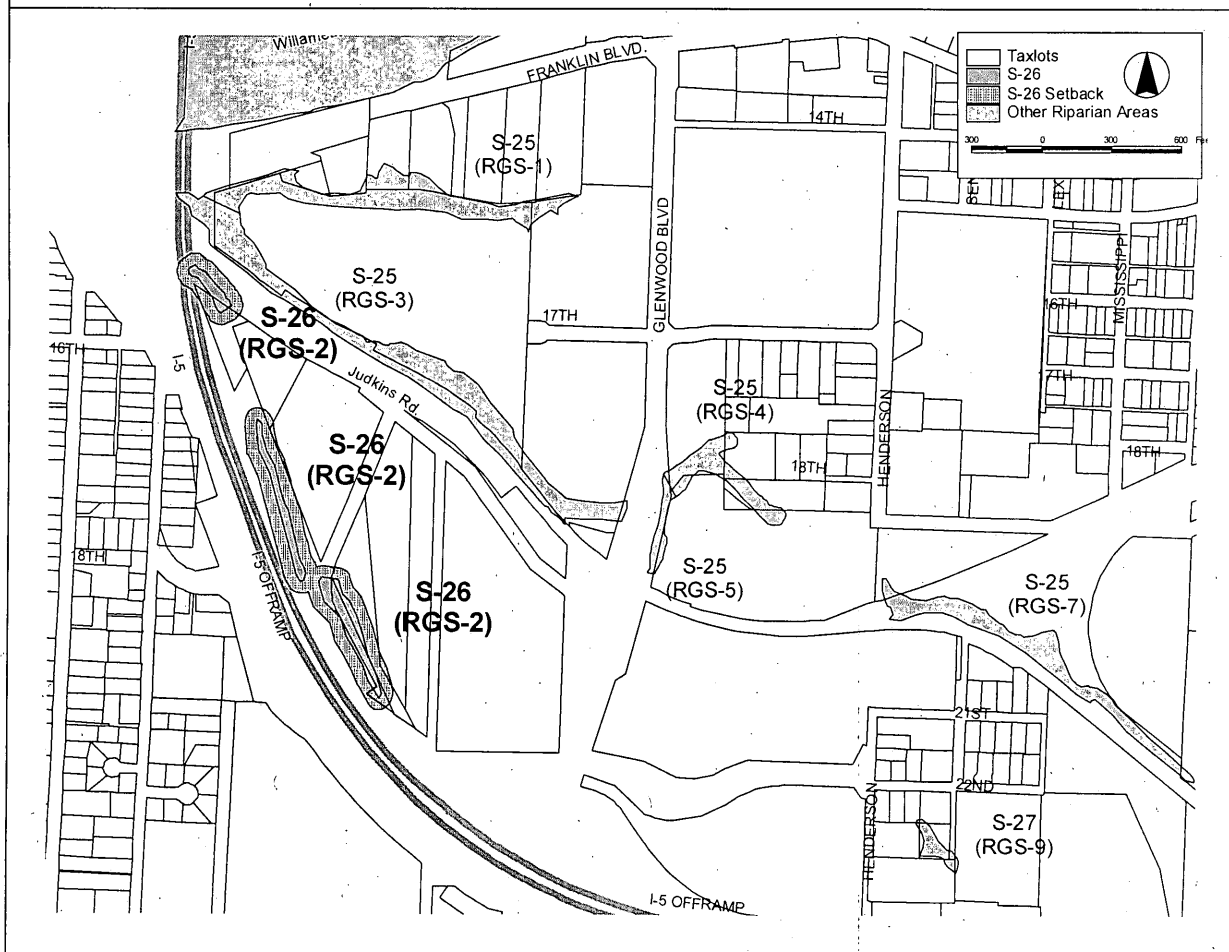
The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

A 50-foot development setback is already required under stormwater provisions of the Springfield Development Code, and thus 2.39 acres of the 3.75 acre impact of the setback is not attributed to this report.



Site:	Associated Wetlands:	Acres:	<b>WHA Score:</b>
<b>S-26</b>	W-23	1.56	17-57
<b>(RGS-2)</b>	Moderate Quality Wetlands		<b>High Quality Resource Site</b>
<b>Riverview/Augusta Channel</b>			

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. S-26 is associated with the Riverview-Augusta Channel. The channel is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the channel also protects S-26. Any portion of S-26 not protected by the Riverview-Augusta Channel 50-foot setback should be protected by a 25-foot setback under the standards and protections found in SDC 4.3-117. S-26 is adjacent to but not directly connected to a locally significant wetland (W-23).



**Description:**

Site S-26 is a perennial stream that varies in width between 2-5 feet. It is bordered to the west by I-5. Much of the stream and the defined impact area are located within ODOT right-of-way adjacent to I-5 and beneath the Willamette I-5 Bridge.

S-26 is segmented, with a 462-foot culvert dividing the northern and southern segments of the stream. The northern segment of S-26 daylight under the Willamette I-5 Bridge before continuing north to the Willamette River. The left & right banks are similar but the average slope of the right bank is 10% and the impervious surface is between 10-25%. About 75% of both banks of S-26 are affected by development.

No known fish survey has been conducted for S-26. The stream is not shown on ODFW maps of fish-bearing streams. There is an unnamed perennial drainage that begins on the west side of I-5 (in Eugene) and is culverted under the freeway where it converges with the culverted portion of S-26. Oregon Department of Fish and Wildlife representative, Jeff Ziller, said this Eugene drainage that connects to S-26 has cutthroat trout. The presence of cutthroat in the Eugene drainage suggests that S-26 is also fish-bearing. The proximity and connectivity to the Willamette River also suggests that fish are present in S-26.

**Observed Vegetation**

Woody Vegetation		Herbaceous Vegetation	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Festuca arundinacea</i>	Tall Fescue
<i>Salix sitchensis</i>	Sitka Willow	<i>Plantago lanceolata</i>	English Plantain
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Daucus carota</i>	Queen Anne's Lace
<i>Rubus discolor</i>	Himalayan blackberry	<i>Aira caryophyllea</i>	Silver Hairgrass
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Lathyrus sp.</i>	Wild Pea
<i>Robinia pseudoacacia</i>	Black Locust	<i>Cirsium arvense</i>	Canada Thistle
<i>Rubus armeniacus</i>	Armenian Blackberry	<i>mixed grasses (unidentified)</i>	
<i>Acer macrophyllum</i>	Oregon Maple	<i>Dipsacus sylvestris</i>	Common Teasel
<i>Salix lasiandra</i>	Pacific Willow	<i>Hypericum perforatum</i>	St. John's Wort
<i>Cytisus scoparius</i>	Scotch Broom	<i>Juncus effusus</i>	Common Rush
<i>Symphoricarpos albus</i>	Snowberry		

**Wetland Vegetation**

Trees/ Shrubs		Vines/ Herbs	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Mentha arvensis</i>	Field mint
<i>Salix sitchensis</i>	Sitka Willow	<i>Biden sp.</i>	Begger's tick.
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Juncus effusus</i>	Soft Rush
		<i>Carex leptopoda</i>	Short-Scale Sedge

### Soils

<b>Soils—Mapped Series</b>	Chehalis silty clay loam
<b>Hydrologic Source</b>	Groundwater

### Summary of Riparian Functional Assessment

Riparian ID	Reach Length	Stream Width	Riparian Width	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
RGS-2	1,740	2-5 feet	40-75 ft.	M	M	H	M

### Resource and Impact Area Summary

Resource Acreage:	1.56
Impact Area Acreage:	14.73
Combined Resource and Impact Area:	16.29
Vacant Acres within the Combined Area:	1.99
Parcels Affected (Including Impact Area):	8
Combined Parcel Acreage:	57.07

### Conflicting Uses by Acre and Zoning District

SITE ID	LMI	*Right-of-Way	TOTAL ACRES
S-26	.57	.99	.57
S-26 Impact Area	5.12	9.61	5.12
Total	5.69	10.60	5.69

\*Right-of-way does not typically have a zoning designation. As such, the right-of-way acreage shown for the conflicting use acreage is not counted towards the total. The right-of-way acreage is shown here because a large portion of the resource and its impact area are within ODOT and railroad right-of-ways.

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LMI	TOTAL ACRES
S-26	.52	.52
S-26 Impact Area	1.47	1.47
Total	1.99	1.99

### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in SDC Sections 4.3-115 and 5.17-100? **Yes.**

S-26 is associated with the Riverview-Augusta Channel. The channel is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the channel also protects S-26.

### **Site Specific ESEE Analysis for S-26**

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

### **Environmental Consequences**

Although S-26 is highly disturbed, it achieved a WHA score that ranged between 17 for the northern segment to 57 for the southern segment. S-26 is rated overall as a high quality resource site, despite the low score for the northern segment. The northern segment has restoration potential and will likely receive attention as part of a larger riparian restoration project for the area disturbed by construction of the new Willamette I-5 Bridges.

The Riparian Functional Assessment conducted by Pacific Habitat Services indicated that the Water Quality, Flood Management and Wildlife Habitat functions were rated "Medium." The Thermal Regulation function was rated "High." Fully allowing additional conflicting uses would cause the loss of these functions.

### **Social Consequences**

S-26 is located in an area that is heavily impacted by existing industrial development. The stream is not easily accessible to the public nor is it near a school. For these reasons it is not appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site.

### **Economic Consequences**

Fully allowing conflicting uses would mean the loss of the water quality, flood management, thermal regulation and wildlife habitat functions of S-26. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 1.99 acres of vacant industrial land within the combined resource and impact area boundaries.

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of industrial lands. The majority of small sized commercial and industrial parcels needed for future growth shall be met within the existing UGB on small vacant and or redeveloped parcels. Protecting S-26 would reduce the available vacant industrial land within the UGB to meet these needs. The cumulative effect of fully protecting all commercial and industrial land that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. S-26 is associated with the Riverview-Augusta Channel. The Riverview-Augusta Channel is protected by a 50-foot development setback described in SDC Section 4.3-115 and the site plan review standards described in SDC Section 5.17-100. This 50-foot setback protecting the channel also protects S-26. Any portion of S-26 not protected by the Riverview-Augusta Channel's 50-foot setback should be protected by a 25-foot setback under the standards and protections found in SDC 4.3-117.

If the setback afforded to S-26 by the existing Riverview-Augusta Channel protections is removed, a 25-foot setback should be applied to the stream under the standards and protections found in SDC 4.3-117.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	LMI	TOTAL ACRES
S-26	.52	.52
S-26 50-ft. Setback	1.26	1.26
Total	1.78	1.78

About .52 acres of S-26 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 3 lots. Limiting conflicting uses would allow some development to occur within the riparian resource area where the developer could show how the essential functions of the riparian corridor could be preserved or enhanced. A 50-foot development setback is already required for the riparian area under SDC Section 4.3-115. No additional setback is proposed by this study.

A 50-foot setback would affect 1.26 acres of vacant industrial land. The affect of the setback on buildable land could be reduced by aligning development such that side yards, stormwater swales and other required open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-115.

Employing low impact development practices within 150 feet of the riparian area could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC Section 4.3-115.

### Reduction in the Buildable Land Inventory:

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as “Vacant,” or “Redevelopable.” These classifications are not the same used by the Lane County Assessor’s Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting S-26 and its 50 foot setback area from future development effectively reduces the CIBL inventory by a total of 1.3 acres.

### Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories

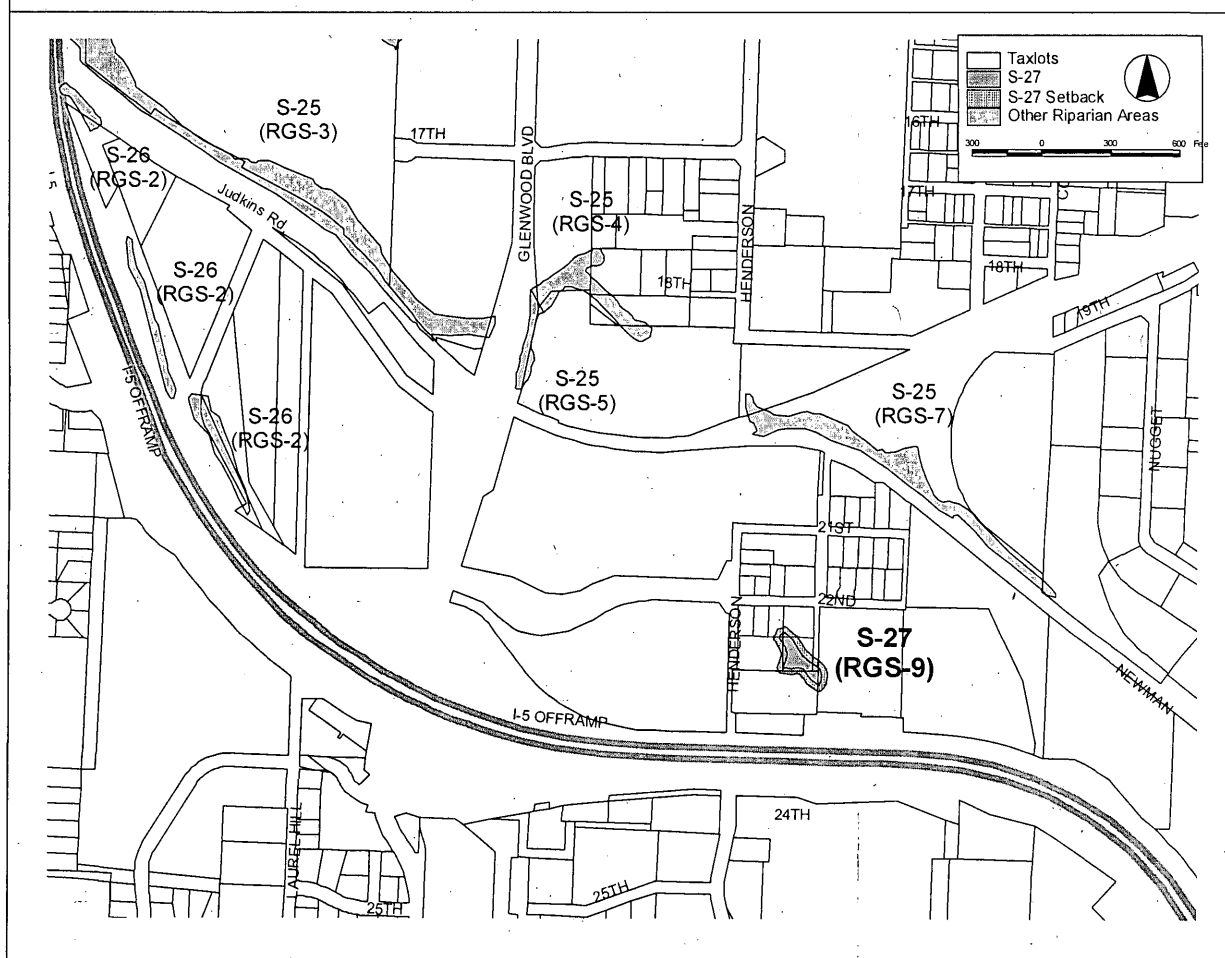
Site S-26 Zoning	Redevelopable	Vacant	Total Acres
LMI	0	1.3	1.3
<b>Total Acres</b>	0	1.3	1.3

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

A 50-foot development setback is required under stormwater provisions of the Springfield Development Code, and thus the 1.3 acre impact of protecting the resource and its setback is not attributed to this report.

Site: <b>S-27</b> <b>(RGS-9)</b>	Associated Wetlands: None	Acres: .33	WHA Score: 45 <b>High Quality Resource Site</b>
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**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. Establish a 25-foot development setback and apply standards and protections found in SDC section 4.3-117. S-27 is not covered by any other existing riparian or wetland protection.



**Description:**

Site S-27 is a perennial stream segment that conveys water from the Moon Mt. area south of I-5. The stream is largely culverted from I-5 to the Glenwood slough, with occasional daylighting

along the watercourse. S-27 is one of those daylighted segments which opens into a 40 foot wide riparian feature. The stream segment is about 274 feet in length and is bounded to the north and west by industrial and residential development. Some land to the south and east is undeveloped, but the stream is culverted as it passes beneath that area.

S-27 is a dense thicket, dominated by willow species. At the time the stream was assessed (July 2009) the feature was sufficiently shrouded by vegetation that the consultants noted that they “could not see the bottom of the drainage due to a steep slope and *Salix* sp. thicket.”

No known fish survey was been conducted for S-27. It is not shown on ODFW maps of fish-bearing streams. The distance and lack of open connection to the Glenwood Slough and the Willamette River argue against this being classified as a fish-bearing stream.

### Observed Vegetation

Woody Vegetation		Herbaceous Vegetation	
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Dispsacus species</i>	Teasel
<i>Acer species</i>	Maple	<i>Fallopia japonica</i>	Knotweed
<i>Alnus species</i>	Alder		
<i>Calocedrus decurrens</i>	Cedar		
<i>Corylus species</i>	Hazelnut		
<i>Salix lasiandra</i>	Pacific Willow		
<i>Rubus armeniacus/dicolor</i>	Blackberry		
<i>Hedera helix</i>	English Ivy		

### Soils

<b>Soils—Mapped Series</b>	Bellpine silty clay loam
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### Summary of Riparian Functional Assessment

Riparian ID	Reach Length	Stream Width	Riparian Width	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
RGS-9	274 ft.	40 feet	35 ft.	M	M	H	M

### Resource and Impact Area Summary

Resource Acreage:	.33
Impact Area Acreage:	3.57
Combined Resource and Impact Area:	3.90
Vacant Acres within the Combined Area:	2.24
Parcels Affected (Including Impact Area):	9
Combined Parcel Acreage:	8.16



### Conflicting Uses by Acre and Zoning District

SITE ID	LDR	LMI	TOTAL ACRES
S-27	.26	.07	.33
S-27 Impact Area			3.57
Total			3.90

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LDR	LMI	TOTAL ACRES
S-27	.31	.06	.37
S-27 Impact Area	.21	2.03	2.24
Total	.52	2.09	2.61

#### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in SDC Sections 4.3-115 and 5.17-100? **No.**

#### Site Specific ESEE Analysis for S-27

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

#### Environmental Consequences

With a WHA score of 45, S-27 is rated as a high quality resource site. The Riparian Functional Assessment prepared by Pacific Habitat Services rated the Water Quality, Flood Management, and Wildlife Habitat as Medium. The Thermal Regulation function was rated as High. Fully allowing additional conflicting uses would cause the loss of these functions.

#### Social Consequences

S-27 is located in an area that is heavily impacted by existing industrial development. The stream is not easily accessible to the public nor is it near a school. For these reasons it is not appropriate for educational or recreational uses. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site.

#### Economic Consequences

Fully allowing conflicting uses would mean the loss of the Water Quality, Flood Management, Thermal Regulation and Wildlife Habitat functions of S-27. These functions could be mimicked

using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of 2.61 acres of vacant land within the combined resource and impact area boundaries. It would cause the loss of about 2.09 acres of industrial land and about .52 acres of low density residential land.

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of industrial lands. The majority of small sized commercial and industrial parcels needed for future growth shall be met within the existing UGB on small vacant and or redeveloped parcels. Protecting S-27 would reduce the available vacant industrial land within the UGB to meet these needs. The cumulative effect of fully protecting all commercial and industrial land that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

The recently completed Springfield Residential Land and Housing Needs Study (2009) did not show the affected residential properties on its inventory of vacant residential lands that will be needed to accommodate future residential growth.

### Energy Consequences

None of note.

### Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. Establish a 25-foot development setback from the resource and apply the standards and protections found in SDC Section 4.3-117.

The disturbed nature of the site and lack of open connectivity to the Glenwood Slough and the Willamette River reduces the likelihood that this is vital fish habitat. The site has other habitat values and the existing vegetation provides a valued thermal regulation function. The 25-foot development setback would not substantially reduce those functions and would allow some nearby development to meet industrial and residential needs.

### Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

#### Impact on Vacant Acreage by Zoning District

SITE ID	LDR	LMI	TOTAL ACRES
S-27	.25	.06	.31
S-27 25-ft. Setback	.38	.22	.60
Total	.63	.28	.91

About .31 acres of S-27 is classified as vacant by the Lane County Assessor's Office. The vacant acreage includes portions of 6 lots. Limiting conflicting uses would allow some development to occur within the riparian resource area where the developer could show how the essential functions of the riparian corridor could be preserved or enhanced.

A 25-foot setback would affect .22 acres of vacant industrial land and .38 acres of low density residential land. The affect of the setback on buildable land could be reduced by aligning development such that yards and other open space are within the setback. Stormwater management facilities required for development can be placed within the setback under SDC Section 4.3-115.

Employing low impact development practices within 150 feet of the riparian area could reduce the impact of nearby development on the resource. Some low impact development practices are already incorporated into the stormwater quality protection standards found in SDC Section 4.3-115.

#### **Reduction in the Buildable Land Inventory:**

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as “Vacant,” or “Redevelopable.” These classifications are not the same used by the Lane County Assessor’s Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting S-27 and its 25 foot setback area from future development effectively reduces the CIBL inventory by a total of .19 acres and the RLS by a total of .38 acres, for a total of .57 acres.

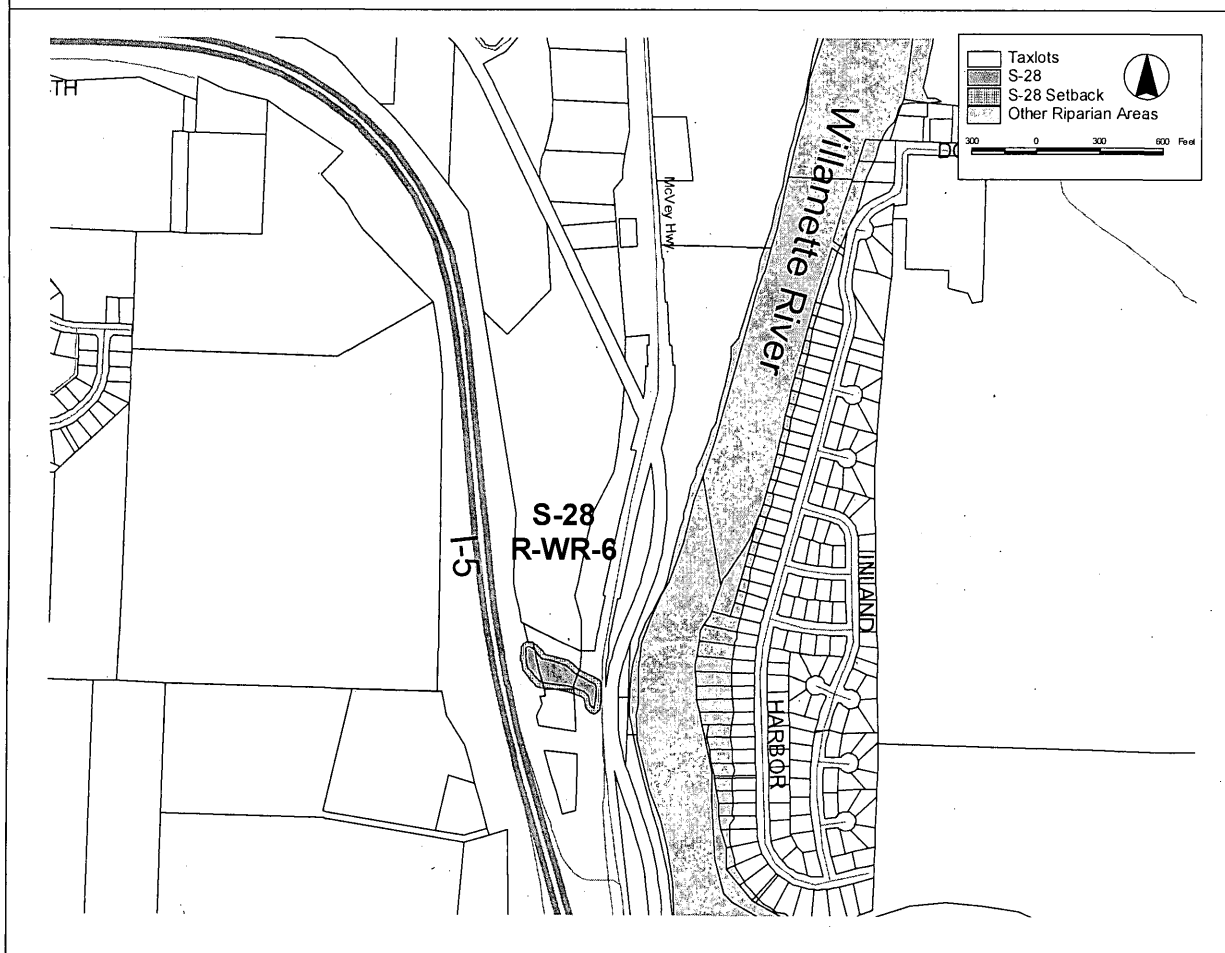
#### **Impact of Recommended Protection on Commercial, Industrial and Residential Land Inventories**

<b>Site S-27 Zoning</b>	<b>Redevelopable</b>	<b>Vacant</b>	<b>Total Acres</b>
LDR	.38	0	.38
LMI	.13	.06	.19
<b>Total Acres</b>	.51	.06	.57

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

Site:	Associated Wetlands:	Acres:	WHA Score:
<b>S-28</b>	W-24	.73	61
<b>(R-WR-6)</b>	Moderate Quality Wetlands		<b>High Quality Resource Site</b>

**Goal 5 Recommendation:** Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. Establish a 25-foot development setback and apply standards and protections found in SDC section 4.3-117. S-28 is not covered by any other existing riparian or wetland protection.



**Description:**

S-28 is a narrow stream that meanders through a wetland area that is vegetated by willow thickets and Reed Canary grass. It is sandwiched between the ODOT right-of-ways for the I-5 and McVay Hwy. The system is fed by a storm culvert from under the freeway and exits through a storm culvert under McVay Hwy. and into the Willamette River.

**Observed Vegetation**

<b>Woody Vegetation</b>		<b>Herbaceous Vegetation</b>	
<i>Fraxinus latifolia</i>	Oregon Ash	<i>Festuca arundinacea</i>	Tall Fescue
<i>Pseudotsuga mensiesii</i>	Douglas Fir	<i>Equisetum arvense</i>	Field Horsetail
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Rubus discolor</i>	Himalayan Blackberry		
<i>Populus trichocarpa</i>	Black Cottonwood		
<i>Acer macrophyllum</i>	Oregon Maple		
<i>Oemleria cerasiformis</i>	Indian Plum		
<i>Quercus Garryana</i>	White Oak		
<i>Hedera helix</i>	English Ivy		

Native and non-native vegetation were distributed throughout the reach and wetland. Reed Canary grass is starting to overtake the wetland area. There is a thick canopy with cottonwoods, maples and willows. Lots of Oak trees and Ash were visible just outside the area with a scattering in the site.

**Wetland Vegetation**

<b>Dominant Wetland Vegetation</b>			
<b>Trees/ Shrubs</b>		<b>Vines/ Herbs</b>	
<i>Populus trichocarpa</i>	Black Cottonwood	<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Salix lasiandra</i>	Pacific Willow	<i>Oenanthe sarmentosa</i>	Water-Parsley
<i>Cornus stolonifera</i>	Red-Osier Dogwood	<i>Urtica dioica</i>	Stinging Nettles
		<i>Carex obnupta</i>	Slough Sedge
		<i>Equisetum arvense</i>	Field Horsetail

**Soils**

<b>Soils—Mapped Series</b>	Dixonville-Philomath-Hazelair complex
<b>Hydrologic Source</b>	Groundwater

### Summary of Riparian Functional Assessment

Riparian ID	Reach Length	Stream Width	Riparian Width	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
R-WR-6	331 feet	2-3 feet	120 feet	H	H	H	M

### Resource and Impact Area Summary

Resource Acreage:	.73
Impact Area Acreage:	5.04
Combined Resource and Impact Area:	5.77
Vacant Acres within the Combined Area:	.39
Parcels Affected (Including Impact Area):	5
Combined Parcel Acreage:	36.35

### Conflicting Uses by Acre and Zoning District

SITE ID	LDR	PLO	*Right-of-Way	TOTAL ACRES
S-28	.41	0	.32	.41
S-28 Impact Area	1.24	.6	3.20	1.84
Total	1.65	.6	3.52	2.25

\*Right-of-way does not typically have a zoning designation. As such, the right-of-way acreage shown for the conflicting use acreage is not counted towards the total. The right-of-way acreage is shown here because a large portion of the resource and its impact area are within ODOT and railroad right-of-ways.

### Conflicting Uses by Vacant Acre and Zoning District

SITE ID	LDR	PLO	*Right-of-Way	TOTAL ACRES
S-28	0	0	0	0
S-28 Impact Area	0	.39	0	.39
Total	0	.39	0	.39

\*Right-of-Way does not typically have a zoning designation. As such, the Right-of-Way acreage shown for the conflicting use acreage is not counted towards the total.

### Existing Protections

Is the site protected by minimum development setbacks and site plan review standards described in SDC Sections 4.3-115 and 5.17-100? **No.**

The Glenwood Refinement Plan includes policies that give direction for environmental design affecting S-28. The Refinement Plan states, "Significant wetland areas in Glenwood shall be

protected from encroachment and degradation in order to retain their important functions and values related to fish and wildlife habitat, flood control, sediment, and erosion control, water quality control, and ground water pollution control,” (Policy 1, pg. 92, Environmental Element).

### **Site Specific ESEE Analysis for S-28**

This section discusses ESEE impacts that are specific to this particular site. For a broader discussion of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on wetlands, see the General ESEE Analysis found in Section 8 of this report.

### **Environmental Consequences**

With a WHA score of 61, S-28 is rated as a high quality resource site. Much of S-28 includes inventoried a locally significant wetland (W24). The Riparian Functional Assessment prepared by Pacific Habitat Services rated the Water Quality, Flood Management, and Thermal Regulation functions as High. The Wildlife Habitat function was rated Medium.

The wetland’s water quality and hydrologic control functions are impacted or degraded. The resource provides habitat for some species, but the OFWAM analysis concludes that it does not provide a diverse wildlife habitat.

Fully allowing additional conflicting uses would cause the loss of these riparian and wetland functions.

### **Social Consequences**

S-28 is isolated and not easily accessible to the public. It is not near a school. The Willamalane Park and Recreation District Comprehensive Plan shows no anticipated park facilities or natural areas near the resource site. For these reasons it is not appropriate for educational or recreational uses.

### **Economic Consequences**

Fully allowing conflicting uses would mean the loss of the water quality, flood management, and thermal regulation and wildlife habitat functions that are provided by S-28. These functions could be mimicked using engineered facilities at a significant cost. Fully protecting the resource site would mean the loss of .39 acres of vacant Public Land and Open Space within the combined resource and impact area boundaries.

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 did not identify S-28 as providing needed commercial or industrial land. The Springfield Residential Land and Housing Needs Study (2009) did not show the affected residential properties on its inventory of vacant residential lands that will be needed to accommodate future residential growth.

## Energy Consequences

None of note.

## Recommended Program for Protection

Limit conflicting uses and employ low impact development practices when developing within 150 feet of the watercourse. Establish a 25-foot development setback from the resource and apply the standards and protections found in SDC Section 4.3-117.

The small stream width lack of open connectivity to the Willamette River reduces the likelihood that this is vital fish habitat. The site has other habitat values and the existing vegetation provides a valued thermal regulation function. The 25-foot development setback would not substantially reduce those functions and would allow some future redevelopment to meet residential needs.

## Impact of Protection Measures on Vacant Acreage and Buildable Land Inventory

### Impact on Vacant Acreage by Zoning District

SITE ID	LDR	PLO	TOTAL ACRES
S-28	0	0	0
S-28 25-ft. Setback	0	0	0
Total	0	0	0

None of the zoned acreage within the resource site or the 25-foot setback for S-28 is classified as vacant by the Lane County Assessor's Office. Fully protecting the resource would restrict the redevelopment of about .35 acres of low density residential land for additional housing on the site.

### Reduction in the Buildable Land Inventory:

The Commercial Industrial Buildable Lands Study (CIBL) that was completed in 2009 identified a shortage of commercial and industrial lands. The Springfield Residential Lands Study (RLS) that was also completed in 2009 identified a small surplus of residential lands. These inventories include some Glenwood sites and classified each as "Vacant," or "Redevelopable." These classifications are not the same used by the Lane County Assessor's Office. These classifications stem from judgments made by ECONorthwest in collaboration with a steering committee that helped frame assumptions about what is redevelopable and vacant.

Protecting S-28 and its 25-foot setback area from future development effectively reduces the CIBL inventory by a total of .29 acres and the RLS by a total of .38 acres, for a total of .67 acres.



**Impact of Recommended Protection on  
Commercial, Industrial and Residential Land Inventories**

<b>Site S-28 Zoning</b>	<b>Redevelopable</b>	<b>Vacant</b>	<b>Total Acres</b>
LDR	.38	0	.38
LMI	.13	.16	.29
<b>Total Acres</b>	.51	.16	.67

The cumulative effect of fully protecting all commercial and industrial lands that are impacted by riparian or wetland resources could increase the need for UGB expansion to meet land needs.

**Proposed Amendments to the Springfield Inventory of Natural Resource Sites [Insert at  
pg. 284]**

Site	Listed LWI	Acres	WHA Score	WHA Source	Area Map#
<b>E-39</b> <b>Glenwood Slough</b>	Yes	23.8	46-47	Ester Lev,	6, 7
<b>Description:</b> <p>Site E39 consists of several sloughs, wetlands, and riparian strips near or adjacent to Interstate 5 and the Southern Pacific Railroad tracks in the Glenwood area. Vegetation includes willows (<i>Salix</i> spp.), black cottonwood (<i>Populus trichocarpa</i>), sedge (<i>Carex</i> spp.), rush (<i>Juncus</i> spp.), cattails (<i>Typha latifolia</i>), and reed canary grass (<i>Phalaris arundinacea</i>). Interspersion with other natural areas is limited by I-5 and other adjacent roads, but the site's proximity to the Willamette River may increase the number of wildlife species in the area. The Division of State Lands has determined that a portion of this site is a regulated wetland.</p>					
Site	Listed LWI	Acres	WHA Score	WHA Source	Area Map#
<b>S-25 (Formerly E39)</b> <b>(R-GS-1, 3, 4, 5, 7)</b>	Yes	12.30	46-47	Ester Lev,	6, 7
<b>Description:</b> <p>Site S-25 (formerly E-39) consists of segments of the Glenwood Slough near or adjacent to Interstate 5, Franklin Boulevard, Glenwood Boulevard and the Union Pacific Railroad tracks in the Glenwood area. S-25 is generally surrounded by industrial uses, railroad tracks and a highway.</p> <p>The western portion of S-25 wraps around the Glenwood solid waste transfer station. At its west end, the slough passes under the Willamette River I-5 overpass. This western portion has been channelized with cement sides.</p> <p>The portions of S-25 on either side of Glenwood Boulevard are more natural and contain significant riparian vegetation including willows (<i>Salix</i> spp.), black cottonwood (<i>Populus trichocarpa</i>), sedge (<i>Carex</i> spp.), rush (<i>Juncus</i> spp.), cattails (<i>Typha latifolia</i>), and reed canary grass (<i>Phalaris arundinacea</i>). Interspersion with other natural areas is limited by I-5 and other adjacent roads, but S-25's proximity to the Willamette River may increase the number of wildlife species in the area. The Division of State Lands has determined that portions of this site are regulated wetlands (W-20, W-21, and W-22).</p> <p>The dominant riparian tree species include Oregon Ash, Sitka Willow, Red-Osier Dogwood, Black Cottonwood, Black Locust and Oregon Maple.</p> <p>No fish survey was conducted for S-25 and it is not shown on ODFW maps of fish-bearing streams. The proximity and open connectivity to the Willamette River also suggests that fish are present in the Slough.</p>					

Site	Listed LWI	Acres	WHA Score	WHA Source	Area Map#
<b>S-26</b> <b>(R-GS-2)</b>	Yes	1.56	17-57	Washburn	6, 7
<b>Description:</b>  Site S-26 is a perennial stream that varies in width between 2-5 feet. It is bordered to the west by I-5. Much of the stream and the defined impact area are located within ODOT right-of-way adjacent to I-5, and beneath the Willamette I-5 Bridge. S-26 is segmented, with a 462-foot culvert dividing the northern and southern segments of the stream. The northern segment of S-26 daylights under the Willamette I-5 Bridge before continuing north to the Willamette River.  The dominant riparian tree species include Oregon Ash, Sitka Willow, Red-Osier Dogwood, Black Cottonwood, Black Locust, Oregon Maple, and Pacific Willow.  No known fish survey has been conducted for S-26. The stream is not shown on ODFW maps of fish-bearing streams. There is an unnamed perennial drainage that begins on the west side of I-5 (in Eugene) and is culverted under the freeway where it converges with the culverted portion of S-26. The Eugene drainage that connects to S-26 has been documented by ODFW as having cutthroat trout. The presence of cutthroat in the Eugene drainage suggests that S-26 is also fish-bearing. The proximity and connectivity to the Willamette River also suggests that fish are present in S-26.					
Site	Listed LWI	Acres	WHA Score	WHA Source	Area Map#
<b>S-27</b> <b>(R-GS-9)</b>	Yes	.33	45	Washburn	6, 7
<b>Description:</b>  Site S-27 is a perennial stream segment that conveys water from the Moon Mt. area south of I-5. The stream is largely culverted from I-5 to the Glenwood slough, with occasional daylighting along the watercourse. S-27 is one of those daylighted segments which opens into a 40 foot wide riparian feature. The stream segment is about 274 feet in length and is bounded to the north and west by industrial and residential development. Some land to the south and east is undeveloped, but the stream is culverted as it passes beneath that area.  S-27 is a dense thicket, dominated by Pacific Willow, Black Cottonwood, Maple species, Alder species, and Hazelnut trees. At the time the stream was assessed (July 2009) the feature was sufficiently shrouded by vegetation that the consultants noted that they "could not see the bottom of the drainage due to a steep slope and Salix sp. thicket."  No known fish survey has been conducted for S-27. It is not shown on ODFW maps of fish-bearing streams. The distance and lack of open connection to the Glenwood Slough and the Willamette River argue against this being classified as a fish-bearing stream.					

Site	Listed LWI	Acres	WHA Score	WHA Source	Area Map#
S-28 (R-WR-6)	Yes	73	61	Washburn	6, 7
<b>Description:</b>  S-28 is a narrow stream that meanders through a wetland area that is vegetated by willow thickets and Reed Canary grass. It is sandwiched between the ODOT right-of-ways for the I-5 and McVay Hwy. The system is fed by a storm culvert from under the freeway and exits through a storm culvert under McVay Hwy. and into the Willamette River.  The dominant riparian tree species include Oregon Ash, Douglas Fir, Red-Osier Dogwood, Black Cottonwood, Indian Plum, White Oak, and Oregon Maple.					

**Amendments to the Springfield Local Wetland Inventory Site Descriptions [Insert at pg. 303]**

Site: <b>W20</b>	Type: PSS, PAB	Acres: 3.39	OFWAM: Locally Significant Wetland		
<b>Description:</b> <del>Wetland W20 is 3.39 acres and classified as PSS/PAB. The wetland is adjacent to Glenwood Slough and the railroad tracks. Overstory dominant species include Oregon ash, Oregon white oak (<i>Quercus garryana</i>) and big leaf maple. Understory dominant was willow (<i>Salix</i> sp.). Herbaceous dominants were yellow flag iris (<i>Iris pseudoacorus</i>), spreading rush (<i>Juncus patens</i>) and marsh horsetail (<i>Equisetum arvense</i>). Soils were dark in color with mottles. Seasonal hydrology was indicated by the dominance of hydrophytic vegetation and presence of surface water in depressions. The wetland limits were determined where the vegetation changed and there were no longer indicators of hydrology.</del>					
Site: <b>W20</b>	Type: PSS, PUB	Acres: 3.73	OFWAM: Locally Significant Wetland		
<b>Description:</b> W-20 is 3.73 acres and is classified a Palustrine Shrub-Scrub wetland. The wetland is adjacent to Glenwood Slough and the railroad tracks. It is part of the Glenwood Slough. It flows northwest into W-21 prior to being culverted and flowing into the Willamette River. W-20 is bisected by Glenwood Blvd, but is still hydrologically connected by a culvert. The Slough is a topographic bowl. Hydrologic sources include stormwater from adjacent impervious surfaces, in addition to groundwater and upslope surface water. A portion of W-20 was previously delineated (WD96-0375).  The dominant wetland vegetation includes Oregon Ash, Sitka Willow, Red-Osier Dogwood, Field Mint, Begger's Tick, Soft Rush and Short Scale Sedge.  Soil types include: Chehalis silty clay loam.					
Site: <b>W21</b>	Type: PSS	Acres: .47	OFWAM: Locally Significant Wetland		
<b>Description:</b> Wetland W-21 is .47 acres and is classified as a Palustrine Shrub-Scrub (PSS) wetland. The wetland is located under and east of the Interstate 5 Bridge just south of Franklin Blvd. W-21					

was delineated in 2003 (WD2003-0273) as part of the ODOT's I-5 bridge project and Willamette River trail. The west portion was impacted by construction of the I-5 temporary detour bridge. W-21 is bounded to the south by railroad tracks. Glenwood Slough flows through the wetland as do several ditches used to convey stormwater. The wetland is less than one-half acre and is a judged locally significant wetland because of its hydrologic connection to the Willamette River. It is also connected to W22 and W23.

The dominant wetland vegetation includes Oregon Ash, Pacific Willow, Black Cottonwood, Red-Osier Dogwood, Slough Sedge, and Creeping Buttercup.

Soil types include: Chehalis silty clay loam, Pengra-Urban land complex.

Site: <b>W22</b>	Type: PFO	Acres: 2.53	OFWAM: Locally Significant Wetland		
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**Description:**

Wetland W-22 is 2.53 acres and is classified as a Palustrine Forested wetlands (PFO). W-22 is a PFO system located with a drainage that flows through the southern portion. Portions of the wetland have been previously delineated (WD's 03-0273, 00-0102, 98-0051). PHS did not have access to the easternmost and southern portions of W-22 and boundaries were determined through off-site observations, previous delineations, and aerial photography.

The dominant wetland vegetation includes Oregon Ash, Pacific Willow, Black Cottonwood, Red Alder, Clustered Wild Rose, Red-Osier Dogwood, Slough Sedge, Nipplewort and Soft Rush.

Soil types include Chehalis silty clay loam.

Site: <b>W23</b>	Type: PEM	Acres: .87	OFWAM: Locally Significant Wetland		
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**Description:**

Wetland W-23 is .87 acres and is classified as Palustrine Emergent (PEM) wetland. W-23 is a series of small PEM wetlands located within the ODOT ROW and on private property. The wetlands were delineated in 2007 for the I-5 bridge project (WD08-0140). The wetlands are located at the bottom of a steep slope. Hydrology from the wetlands flows into a channel that drains to the northwest into the Willamette River. The wetlands located in the ODOT ROW are mowed and maintained.

The dominant wetland vegetation includes Black Cottonwood, Wild Mint, Begger's Tick, Soft Rush, Sawbeak Sedge, Soft Brome, Common Velvet Grass, English Plantain, Tall Fescue, and Bluegrass species.



Soils types include: Dixonville-Philomath-Hazelair Complex					
Site: <b>W24</b>	Type: PFO	Acres: .51	OFWAM: Locally Significant Wetland		
<p><b>Description:</b></p> <p>W-24 .51 acres and is classified as a Palustrine Forested wetland (PFO). W-24 is located at the bottom of surrounding steep slopes. There is a narrow intermittent drainage channel that flows through the middle of the wetland. This drainage continues east through a long culvert under McVay Hwy. and the railroad and out to the Willamette River. W-24 is located between I-5 and McVay Hwy. with residential land uses to the north and south.</p> <p>The dominant wetland vegetation includes Black Cottonwood, Pacific Willow, Red-Osier Dogwood, Reed Canary Grass, Water-Parsley, Stinging Nettle, Slough Sedge and Field Horsetail.</p> <p>Soil types include: Dixonville-Philomath-Hazelair Complex.</p>					
Site: <b>W25</b>	Type: PFO	Acres: 4.31	OFWAM: Does Not Meet Significance Criteria		
<p><b>Description:</b></p> <p>W-25 is a depressional PFO area bounded on all sides by railroad tracks. PHS was able to view the wetland from adjacent road ROWs and the Franz bakery property to the east. It is surrounded by adjacent commercial properties. There is a drainage located along the southern portion of the wetland. It flows northwest into a large culvert located within the ROW of Glenwood Boulevard that is believed to flow into the Glenwood Slough (W-20).</p> <p>The dominant wetland vegetation includes Black Cottonwood, Nootka Rose, Pacific Willow, Red-Osier Dogwood, Slender Rush, Slough Sedge, Wild Mint, Reed Canary Grass, Water-Parsley, Deadly Nightshade, Creeping Buttercup, and Field Horsetail.</p> <p>Soil Types include: Chehalis silty clay loam.</p>					
Site: <b>W26</b>	Type: PEM	Acres: .86	OFWAM: Does Not Meet Significance Criteria		
<p><b>Description:</b></p> <p>W-26 is a mosaic of 50% wetland and 50% upland located on undeveloped land north of I-5 at the top of a steep slope. It is relatively flat and appears to have been significantly disturbed in the past by scraping. Plant species include a mixture of upland and wetland species. Several areas had mottling and oxidized rhizospheres, despite the general lack of dark chroma soils.</p>					

Deep tire ruts bare evidence of seasonally wet conditions.

The dominant wetland vegetation includes Black Cottonwood, Nootka Rose, Willow species, Slender Rush, Colonial Bentgrass, Coast Tarweed, Tall Fescue, Hedgehog Grass, Common Velvet Grass, Meadow Foxtail, Lowland Cudweed, Hyssop Loosestrife, and Narrow-leafed Flax.

Soil types include Urban land-Hazelair-Dixonville complex.

The tables below summarize the size and classification of the wetland areas within Springfield's Urban Growth Boundary.

#### McKenzie River Basin Wetlands

Site Number	OFWAM Significance	Acres	USFWS Classification(s)
M1		4.94	RLP
M2		3.12	PEM
M3		2.73	PEM/PFO
M4	Locally Significant Wetlands Special Interest for Protection	5.02	PEM
M5	Locally Significant Wetlands	9.13	PFO/PSS/PEM
M6		4.05	PEM/PSS
M7		0.2	PEM
M8*		0.2	PSS
M10*		2.72	RIN
M11*		1.01	POW
M12		1.22	PEM
M14	Locally Significant Wetlands	33.45	PEM/PFO
M15		6.41	PEM
M16	Locally Significant Wetlands	8.44	PFO/POW/RLP/PEM
M17		3.15	PEM
M18*		40.72	POW/PSS
M19		0.37	PFO
M20	Locally Significant Wetlands	0.52	RLP
M21		0.39	PEM
M22		0.1	PEM
M23		0.19	PEM
M24		0.51	PEM
M25		24.0	PEM
M26	Locally Significant Wetlands	1.85	PFO/PEM/PSS
M27		8.28	PEM/PFO
M28	Special Interest for Protection- Mitigation Site	1.51	PEM
M29	Locally Significant Wetlands Special Interest for Protection	1.08	PFO/PEM
M30		6.49	PFO/PEM/POW



Site Number	OFWAM Significance	Acres	USFWS Classification(s)
M31		8.06	POW
M32		3.39	PEM
M33		13.75	POW/PSS/RLP
M34		0.8	PFO
M35		4.91	PEM
M36		0.75	PEM
M37		0.4	PEM
M38		0.08	PEM/PFO
M39*		1.88	PEM
M40		16.51	RLP
		222.33	

### Willamette River Basin Wetlands

Site Number	OFWAM Significance	Acres	USFWS Classification(s)
W1*		4.14	RLP
W2	Locally Significant Wetlands, Special Interest for Protection	0.90	PEM
W3		1.27	PFO/PEM/POW
W4	Locally Significant Wetlands	0.97	PFO/PEM
W5		5.6	POW/PFO/PEM
W6		5.63	PFO
W7*		36.02	POW
W8*		1.22	POW
W9		0.22	PEM
W11		0.67	PSS
W12	Locally Significant Wetlands	1.42	PFO
W10		2.25	PSS
W13		2.24	PFO
W14		0.97	PEM
W15		0.79	PFO
W16	Locally Significant Wetlands	1.46	PFO
W17		17.21	RLP
W18 A-C	Locally Significant Wetlands	131.99	PEM/PFO
**W-19	Locally Significant Wetlands	41.65	POW, PFO
W-20	Locally Significant Wetlands	3.73	PSS/PUB
W-21	Locally Significant Wetlands	.47	PSS
W-22	Locally Significant Wetlands	2.53	PFO
W-23	Locally Significant Wetlands	.87	PEM
W-24	Locally Significant Wetlands	.51	PFO
W-25		4.31	PFO
W-26		.86	PEM
		214.97	
		269.90	

\*\*W-19 was inadvertently left off of this table in the original Springfield Local Wetland Inventory report. Wetlands W-20 through W-26 are the revised resource sites in the Glenwood area.